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Adult Education
and
Training in
Northern Alberta

A Background Report
Prepared for the
Northern Alberta Development Council
by
Resources Management Consultants
(Alberta) Ltd.

May 1982

RESOURCES MANAGEMENT CONSULTANTS (ALBERTA) LTD.
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REVIEW OF ADULT EDUCATION AND TRAINING IN NORTHERN ALBERTA

BACKGROUND REPORT

PREPARED FOR THE

NORTHERN ALBERTA DEVELOPMENT COUNCIL

MAY 1, 1982

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May 3, 1982

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Dear Mr. Archibald:

RMC Resources Management Consultants (Alberta) Ltd. is pleased to present our final report on the REVIEW OF ADULT EDUCATION AND TRAINING IN NORTHERN ALBERTA.

The study posed many logistical and intellectual challenges, providing our project team with an interesting opportunity to contribute to the evolution of the system of adult education and training in the study area.

We would like to thank the Steering Committee Members for their valuable assistance during the course of the study. Their comments contributed important improvements to draft versions of the report.

Our project team looks forward to the Workshop in June, and to the opportunity it will present to discuss strategic planning issues with the main stakeholders in the system.

Yours truly,

RMC RESOURCES MANAGEMENT CONSULTANTS
(ALBERTA) LTD.

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M.B. Kohut
Senior Principal

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EXECUTIVE SUMMARY

BACKGROUND

In 1975 and later 1979, the Northern Alberta Department Council established, and then reaffirmed, Education as one of its areas of interest, in its efforts to advance the development of northern Alberta. To this end, the Council commissioned a series of studies as a preliminary step towards a comprehensive review of adult education. In August 1980 the Council adopted the following motion:

> "That based on results of past studies and preliminary results of ongoing research relating to manpower and educational needs, that the Northern Alberta Development Branch staff requested to begin an extensive study of the entire training/adult education system in northern Alberta with the possibility of conducting a workshop to review major research findings in the spring of 1982".

This study was commissioned by the Northern Development Branch of the Council in May 1981. It represents a partial response to the Council's motion. The study will form a major input into the workshop on adult education training in northern Alberta being planned by Northern Alberta Development Council staff for June 1982.

OBJECTIVES

The objectives of the study are as follows:

To develop models of structure for adult education and training which will speak to the needs of northern Alberta for the immediate future, for the next five and for the next ten years. The models will be based on the following elements:

1. A review of the adult educational programs and the vocational and academic education in northern Alberta in both public institutions and private industry.

2. A description of the educational training needs for adult educational, vocational training programs in northern Alberta.

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3. An assessment of the strengths and weaknesses of the adult education system in the Northern Alberta Development Council area, listing the problems and feasible alternatives for improvement as well as evaluating the impact of the existing forms of basic education upon adult education.

4. Comparison of the degree to which the adult education and training needs are being met in the various sub-regions within the Northern Alberta Development Council area, and if possible to compare the findings to the rest of Alberta and to other provinces.

In short, the study was to establish

* WHAT WE HAVE NOW
* HOW WELL DOES IT WORK
* WHAT WILL WE REQUIRE

PRINCIPAL FINDINGS

The study methodology was based on strategic planning, which is a process of affirming or reaffirming system-wide goals and the general means by which they may be achieved. The findings were:

Data Base and Relative Standing

A large number of courses/programs are available to serve clients in the area through a broad range of public, private, government and agency institutions. The study area is generously endowed with institutional resources, having only 10 percent of the population of Alberta, yet 40 percent of its public colleges and 50 percent of its Vocational Centres. Excluding the two Institutes of Technology in Edmonton and Calgary (NAIT and SAIT), 42 percent of all funds for provincially administered institutions were spent in the study area, which has only 28 percent of the student registrations for provincially administered institutions, again excluding NAIT and SAIT (1979-80).

When only public colleges are considered, 31 percent of all operating funds went to the study area, although FTE enrolment accounted for only 15 percent of the total in the same year. Cost per full time equivalent are substantially higher for study area colleges than others, ranging for $6,000 to $13,000 per FTE compared to other colleges outside the area at around $4,000 per FTE. The cost differences are attributable to distance, climate, type of programming, as well as scale of operation factors.

Current System Strengths

* AVAILABILILTY of a broad range of services and programs throughout the study area.

* SUCCESSFUL preparation of students for the job market, according to employer comments.

* PUBLIC PARTICIPATION in program development and monitoring through the involvement of individuals, often with special expertise from outside the system on advisory and governing bodies.

* FUNDING commitments at levels higher than provincial averages by the province through Alberta Advanced Education and Manpower.

* HUMAN RESOURCE capacity of the north, in terms of community strengths and interest on the part of residents in making the study area more habitable by having services in all areas available locally.

Current System Weaknesses

* Programming in the area of Native Education

* Locally available, relevant programming especially Vocational/Trades Training

* Off Campus Programming. Remote Area facilities in Northwest and Northeast

* Information on Education/Training opportunities at the community and individual counselling levels.

* Supportive elements, particularly development of culturally sensitive approaches to training Native people, and concurrent efforts to increase job opportunities in small communities.

* Day Care Centres to encourage more participation by women, student housing.

* A major problem requiring long term action is improvement of the outputs of the K-12 basic system.

* Training allowances.

* Retention of qualified staff.

* Agency funding.

* System structure requires definition development and coordination, and establishment and/or enhancement of planning and needs assessment capabilities.

Special Problems

The special problems of the system are to adequately provide education and training to Natives and to respond to mega-project induced growth at such time as one or more of the proposed projects in the area proceeds. A special externally generated problem is associated with the extra efforts required by the system to upgrade adults inadequately prepared for further education by the K-12 basic system.

Constraints and Opportunities

Constraints	Opportunities for Development
GEOGRAPHY	Delivery system development, especially Distance Education Technologies and techniques to increase accessibility.
ECONOMICS OF SMALL COMMUNITIES	Programming which concentrates on cottage industries reflecting local talents, (crafts, arts, farming etc.): small business development and management, agricultural workers, etc.
CULTURAL BARRIERS	Cross cultural programming to help tap the vast source of human potential and underutilized labour resources represented by Natives which would help reduce future labour shortages.

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LIMITED PREDICTABILITY OF TIMING OF MAJOR ECONOMIC DEVELOPMENT	Current indications are that mega-project development is not imminent. This creates a special opportunity for building up planning and management capability, and learning about Distance Education, to better respond to short and intermediate term needs, including the capacity to quickly respond to mega-project requirements, should they arise.
JURISDICTIONAL FACTORS AFFECTING NATIVE EDUCATION	Initiatives involving goodwill between provincial and federal governments, special incentive and matching grant programs involving Natives, the provincial government, educational agencies and employers.

Needs are displayed over 5 and 10 year planning horizons in Table 3.9 according to five broad areas.

I. Strengthen Areas of Current Weakness

II. Provide Programming to meet Normal Growth Requirements

III. Adapt Programming and Delivery to Expected Trends

IV. Respond to Special Demands/Challenges generated by Future Trends

V. Provide Programming to meet Mega-Project Generated Demands

TABLE 3.9

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
I	TO STRENGTHEN CURRENT WEAKNESSES IN THE AREAS OF:				
	System Inputs				
	* K-12 Basic System	X	X	0	A significant concern throughout the study area. Students leaving the Basic System are poorly prepared and need extra help as adults. As population shifts occur, decreasing numbers of 0-14 year olds by 1991 will reduce the problem.
	* Training Allowances	X	X	X	Financial barrier to education and training should not exist. As population shifts to higher adult mix, allowances will become even more important for those seeking retraining.
	* Agency Funding	X	X	X	Requires deeper assessment, and better management and financial systems to identify the depth of the problem. Costs in the north will always be higher on average than in the south.
	* Retention of Qualified Training Staff	X	X	X	Study area will continue to retain only those who truly enjoy the sense of frontier and closer community life in the north. The need for new teachers, health care and social services personnel, will continue, because of out-migration.
	Programming				
	* Native Education	X	X	X	The strongest need as perceived by RMC, demanding early action. The problems range from accessibility to programs, through the provision of culturally sensitive programming to ensure learning effectiveness. Current jurisdictional disputes cannot be permitted to stall initiatives in this area.
	* Local Relevant Programming Particularly Vocational/ Trades Training	0	X	X	While these training needs exist now, they are expected to grow. Local programming increases relevancy and accessibility, but places extra fiscal pressure on the taxpayer.
	- Off Campus Programming	X	X	X	A need resulting from expectations and geography. Could be facilitated in the future by extra funding and Distance Education.
	- Remote Area Facilities	X	X	X	Need related to geography. Development or designation of specific facilities would improve availability of programs. Instructor availability would continue to be problematic but could be helped by Distance Education. Northwest and Northeast corners of the province have fewer resources available than other parts of the study area.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
1	TO STRENGTHEN CURRENT WEAKNESSES IN THE AREAS OF:				
	Information on Education/ Training Opportunities				
	* Community Awareness	X	X	0	Communication Technologies are likely to facilitate increased awareness and reduce this problem in the future.
	* Career Counselling for Individuals	X	X	X	High priority at all times due to personal needs and changing technologies.
	System Structure				
	* Definition of System Structure and Coordination	X	X	X	Role definition and formulation of adequate management information systems at the agency level and at whole system level would help significantly.
	* Planning and Needs Assessment Capability	X	X	X	
	Supportive Elements				
	* Day Care Centres	X	X	0	An important means of assisting many women to take further education training and retraining. May see decreased demand in the future due to effects of Distance Education, and demographic trends in the study area.
	* Culturally Sensitive Programming	X	X	X	Necessary throughout the decade. Specific to both Native people and new immigrants
	* Development of Socio-Economic Opportunities	X	X	X	A non-educational need in the study area, particularly in small communities. Affects perceived value of education and training programs.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
II	TO PROVIDE PROGRAMMING TO MEET NORMAL GROWTH REQUIREMENTS IN:				
	* Basic Skills/Job Readiness/ Literacy	X	X	X	Major area for need through decade for Native population and new immigrants. Should include curriculum section on unions.
	* Skilled Vocational/Technical Trades	X	X	X	Industrial firefighting/ scaffiling/construction trades/ welders/steam engineers/heavy duty mechanics/process operators/agricultural and oil and gas exploration workers will be required due to continued growth.
	* Human Service Skills	X	X	X	Meat cutters/clerical/cashiers/ bartending/hospitality, etc.
	* Entrepreneurial/Professional service categories	X	X	X	Business management especially for small business ownership/ financial training/health and social service occupations will be necessary due to increased hospital construction
	* University Transfer/Special high cost technology programs	0	0	0	Will receive a moderate level requirement as major university and college resources will necessarily continue to be outside the area.
	* Programs for Women	0	0	0	A newly perceived need likely to grow and provide study area benefits through decreased out-migration and high participation of women in the work force.
	* Special Needs	0	0	0	A continuing need for services for the handicapped, socially and mentally disabled.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: O - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
III	TO ADAPT PROGRAMMING AND DELIVERY TO EXPECTED TRENDS IN:				
	Demography				
	* Enrolment Shifts to More Part-time students in Credit/Short Course/Non-credit Programs	O	X	X	Reflects study area changing age structure of adult students due to growth in 25-44 and 65+ group. Decrease in 15-24 group.
	Economy				
	* Labour Shortages in Alberta	X	X	X	Needs for program expansion will exist due to continued robust Alberta economic growth, independent of mega-projects.
	* Shift in Economy to Industrial Growth and Trades/Service/ Finance/Transportation/ Manufacturing		O	X	Women and Natives represent largely untapped human resources for all occupations. Trades/ Service/Finance most likely requirements for study area. Need to adapt programs and delivery to these clients will grow over the decade.
	* Intensified Development of Resource Industry	O	O	X	Current impacts are in place in the study area. The timing of major future impacts depends on external political and economic factors; however, development in this area will continue as a major feature in the north.
	Social Expectations				
	* Pressure for Service Delivery in Outlying areas	O	X	X	People will increasingly expect services closer to home. This need could be met in part by Distance Education Technologies by 1991, but will likely result in an increased demand because of the new availability of offerings these technologies will provide.
	Technology				
	* Demand for Technological Training and Retraining	O	X	X	Continual new technological development is anticipated throughout the decade, affecting job preparation processes, and the need for new knowledge.
	* Specific Growth in the Use of Computers in Industry	O	X	X	After 1986, accelerated demand for literacy with computers will precipitate changes in programming and delivery
	* Development and Application of Interactive Communication Technologies	O	X	X	Significant impact by 1991 anticipated, resulting in rethinking of delivery system strategies and teaching approach. The short term need identified refers to more knowledge at the individual and system level about these technologies.
	* Specific Initiatives affecting Study Area Program Delivery involving:				
	- CML/CAI		O	O	Moderate use may be anticipated for those courses/programs for which this mode is suited. Adaptation will take some time.
	- Interactive communications technology integration in instruction		O	X	Growing impact and use expected.
	- Land and satellite based communications network developments.		O	X	Major impact in study area anticipated by 1991

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
III	TO ADAPT PROGRAMMING AND DELIVERY TO EXPECTED TRENDS IN:				
	Government Policy Initiatives				
	* Industry Based Training		0	X	May be strongly affected by Federal policy funding initiatives currently underway.
	* Fiscal Restraint	0	X	X	Will require adaptation throughout the decade and will depend on economic growth and provincial policy goals.
	* Specific Advanced Education and Manpower Policy Initiatives in Technologies and Trades/ Applied Arts/Program Delivery	0	X	X	Will have major impact within 5 years on new program approvals, swinging the system in the direction of preferred funding.
	* Coordination of Services	0	X	X	Expected to be precipated by government fiscal policies, and facilitated by communications networking.
	* Regionalization of Services (Both specialization of delivery at larger centres and decentralization throughout specific regions)	0	X	X	Will be encouraged and then made necessary by fiscal pressures. Current trends are limited.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
IV	TO RESPOND TO SPECIAL DEMANDS/ CHALLENGES GENERATED BY FUTURE TRENDS, AT AGENCY AND SYSTEM LEVEL:				
	* Flexibility	0	X	X	The need to respond to these demands will increase throughout the system and affect programming delivery mechanisms, planning capability and funding and resource allocation.
	* Accountability	0	X	X	
	* Management Effectiveness	0	X	X	
	* Understanding, Applying and Exploitating Distance Education Technologies	X	X	X	A special challenge offering a compelling promise of increasing accessibility, but carrying with it a need to understand the significant differences between regular instruction and approaches using DET modes.
V	TO PROVIDE PROGRAMMING TO MEET MEGA-PROJECT GENERATED DEMAND FOR:	----	Depends on Political and Economic Considerations	----	Could be required on short notice in some categories.
	* Skilled trades		0	X	Highest Priority: Pipefitters/ Operating Engineers, Labourers/ Pressure "B" Welders Next Priority: Iron Workers/ Insulators/Electricians/ Boiler Makers/Carpenters
	* Project specific professional manpower		0	X	Project design and management staff/engineers/accountants etc.
	* Trained Manpower associated with Secondary Demand		0	X	Engineers/Physicians/Teachers Lawyers, plus increased demand in all areas, including programming for special needs of handicapped, immigrants, others, generated by mega-project induced population growth.

An additional, need generated by mega project development will be system reponse capability to mobilize and deploy resources effectively, efficiently, and in a timely way, to meet primary project needs, while at the same time coping with the increased effects of secondary demand, both in a compressed time period.

FUTURE DIRECTIONS

Whereas the previous sections identified the nature of the existing system, this section establishes the nature of the future system in terms of basic aims and goals, and then presents a set of strategies which form the general means by which the planning gap between where we are and where we wish to be, can be bridged.

Proposed AETNA System Goal Structure

SYSTEM AIM	TO PROVIDE HIGH QUALITY, EFFECTIVE, EMPLOYMENT ORIENTED EDUCATION AND TRAINING SERVICES TO MEET THE NEEDS OF ADULTS IN NORTHERN ALBERTA, WITH AVAILABILITY AND ACCESSIBILITY OF SUCH SERVICES COMPARABLE THROUGHOUT THE AREA, AND COMPARABLE TO OTHER PARTS OF THE PROVINCE.
GOAL 1	Northern Participation
GOAL 2	Sector Coordination and Involvement
GOAL 3	Assurance of Basic Level of Education
GOAL 4	Relevancy of Programming
GOAL 5	Cultural Sensitivity
GOAL 6	Communication of Information on Education and Training Opportunities
GOAL 7	Adequate Resource Allocation and Development
GOAL 8	System Development, Coordination and Planning
GOAL 9	Implementation to Meet Identified Needs

The recommended strategies for discussion, and subsequent elaboration into local and system wide operational plans are:

Overall System Strategies

STRATEGY 1 — Concentrate primary system efforts on current programming using existing system structures and resources, and direct future effort to providing programming to meet normal growth needs according to priorities of Table 4.1

STRATEGY 2 — Direct existing system energies and efforts to improving systems performance by strengthening areas of weakness according to priorities in Table 4.2

STRATEGY 3 — Take advantage of the opportunity, presented by a decreased pressure for responding to mega-project generated needs, to build up capability and understanding regarding:

* Management Systems including information systems, financial and accounting systems, accountability mechanisms.

* Planning and Needs analysis capability.

* Distance Education technologies, their characteristics, limitations, and effective use.

STRATEGY 4 — Policy liaison and initiatives be initiated, with the intent of maximizing Native peoples' access to funding and authority over education and training on reserves for adults, and to facilitate access to existing programs in the north by individual students. These initiatives should explore and achieve definitive action commitments involving:

* Relevant job opportunities and related educational needs.

* Cooperative efforts to facilitate access and delivery between Native Albertans, Federal and Provincial Governments, local industry, relevant local delivery agencies, Distance Education agencies.

* Financial incentives, including matching grants, to employers sponsoring the education of Native students, and to individual institutions if appropriate.

* Associated job creation opportunities to ensure students make use of their education.

STRATEGY 5

Develop specific geographic boundaries identifying primary catchment areas for individual adult education and training institutions. These should reflect existing use and natural trading patterns of local areas.

The purpose of these boundaries would be to establish primary jurisdictions for program development, recognizing that certain expensive programs may serve more than one area, and duplication in neighbouring areas for certain programs may be appropriate.

STRATEGY 6

Establish a task force to explore the potential of providing federal or provincial grants for training directly to industry, given the perspective of the needs and interests of northern Albertans.

STRATEGY 7

All delivery agencies including Alberta Advanced Education and Manpower, ACCESS, and the Consortia develop formal role statements outlining their desired roles and mandates regarding:

* delivery and its initiation.

* needs assessment and planning.

* monitoring and control.

* funding.

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Upon formulation, Alberta Advanced Education and Manpower should develop a consultative process to reconcile these roles in a flexible yet realistic way.

STRATEGY 8

Alberta Advanced Education and Manpower should evolve into a definite role which includes:

* administration of legislation.
* program and facility approvals.
* funding of operating and capital costs.
* System level Strategic Planning.
* Policy Development.

The Department should gradually relinquish its role as a direct delivery agent and replace it with the role of initiating change and improvements.

STRATEGY 9

Alberta Advanced Education and Manpower established a practice of formulating yearly strategic planning papers for the province as a whole, and its specific geographic sections, of which northern Alberta should be a prime example. These papers should be distributed to each delivery agency annually and include information on:

* demographic forecasts and trends.
* economic trends.
* participation rates.
* labour force requirements.
* new policy directions.
* other trends and issues.

STRATEGY 10 — Incentive structures should be developed at the provincial level to facilitate the growth and availability of planning and management capability for local agencies.

STRATEGY 11 — Develop a commitment to local governance and explore the viability of its implementation in the following ways:

* The Alberta Vocational Centres at Lac la Biche and Grouard be considered for board-governed status, and become two year Community Colleges.

* The Community Vocational Centres, Career Centres, Opportunity Corps and other provincially administered programs must be given greater autonomy for decision-making through the establishment of recognized advisory committees with defined responsibilities for local decision-making and hence accountability.

* All institutions and programs must be given the resources to establish local advisory committees, comprised of representatives of the communities served by the programs.

* The existing consortia, which have shown great promise, be assisted in carrying out their mandates. Consideration must be given to expanding the concept to other northern regions, such as the north-central region (Slave Lake, Wabasca, Calling Lake, etc.) and the north-east region (Fort McMurray, Lac La Biche, Bonnyville, Cold Lake).

* The development of local advisory committees and/or boards, including representation from the K-12 system, in order to facilitate communication between the two systems and to provide a bridge for cooperative training programming.

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* Appointment of Board members includes Natives, both status and non-status, and Metis in a meaningful way.

STRATEGY 12

Explore the feasibility of formal regionalization, in particular, considering the following:

* AVC Lac La Biche become a satellite of Lakeland College, with a continuing mandate to serve the training needs of Native people throughout the Lakeland service region as well as serving its immediate region.

* AVC Grouard become a satellite of Grande Prairie Regional College, with a similar mandate to serve Native people within the Grande Prairie Regional College service area as well as needs of others within the immediate Slave Lake region.

* The Community Vocational Centres and Opportunity Corps be amalgamated and the new organization have an expanded mandate to become a mobile training unit serving the basic training needs of remote communities throughout the north. This new entity would build on existing linkages and would take on responsibility for delivery of basic modules of apprenticeship and skill training in remote communities, potentially avoiding duplication, and facilitating the combination of resources and expertise.

* Appointment of Board members to necessarily include representation from the remote Native and Metis communities.

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* Fairview College to continue its work currently with the Mackenzie North Project, providing regional programming to the northwestern corner of the province, including such communities as High Level and Fort Vermilion, through such facilities as may be appropriate.

STRATEGY 13 — Explore the Development of a Consortium for Northern Native Education.

STRATEGY 14 — Review funding levels and approaches to programs/institutions in the north, in the light of northern realities, system structure changes and with a view to creating incentives which enhance and encourage local governance and regionalization.

Strategies Specific to Programming

STRATEGY 15 — Review, adjust and specify programming priorities on a local need basis, using Table 4.1 data as a starting point.

STRATEGY 16 — Continue monitoring economic developments, particularly potential go-ahead mega-projects, and alert the system to mobilize its resources as early as possible when the need arises.

STRATEGY 17 — Subject to specific indications of short and intermediate local needs and requirements generated by normal growth, institutions and agencies should continue programming at current levels, but not develop resources to expand them.

Delivery Strategies

STRATEGY 18 — Develop the concept of the adult community learning centre over the next two years, establishing pilot projects associated with existing facilities (e.g. community schools). In the period 1986-1991 expand the concept to cover most centres in the area.

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STRATEGY 19	Advanced Education and Manpower to initiate a major funded project, involving representatives of ACCESS and Native representatives, and the post-secondary institutions serving the study area, to develop a comprehensive plan to practically exploit existing telecommunication and computer based teaching technologies, in the interests of maximizing access to adult education and training for all northern Albertans. This project and the implementation of the resultant plan should have high priority at Advanced Education and Manpower.
STRATEGY 20	In consultation with the Native communities in the study area, develop two pilot projects to 1986, and then pursue further extention of this mode if found effective.
STRATEGY 21	Explore opportunities and develop incentives for industry and institutions to further the on-the-job training as a delivery mechanism, particularly in high priority programming areas of Table 4.1.
STRATEGY 22	Review the concept of the "community" college, and the means by which each delivers services, with the intent to respond more directly to individual needs of adult learners in their communities.
STRATEGY 23	Draw up pro forma cost and human and facility resource implications for representative sizes of operations for each of the delivery approaches, to develop a better understanding of implications prior to implementation, and make these available on request to communities to act as a starting point for discussion on how to develop desired approaches.

STRATEGY 24

Review funding approaches and formula levels with the intent of encouraging innovation and diversity of approaches to delivery.

STRATEGY 25

A system wide policy should require the formulation and meaningful implementation of a full range of advisory committees to each institution and program. The advisory committees should comprise representatives of the local community with special interests and/or relevant expertise, including Native representatives. The mandate of these committees should be to assist the administration and management of each program/institution to ensure relevancy and effectiveness in delivery, and efficiency in the use of resources.

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CONCLUSION

This Review of Adult Education and Training in Northern Alberta represents a first "cut" at identifying system needs and future directions.

As such, it will form the basis for a major discussion on the same topic at a proposed workshop of invited system stakeholders, in June 1982.

The results of the study are intended to be a beginning rather than an end, providing the basis for future system, and local level operational planning, thereby encouraging goal congruency between deliverers of services and enhancing system effectiveness.

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Steering commitee members, in the study were:

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CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 OVERVIEW

The purpose of this chapter is to introduce and lay a framework for the balance of this report. It begins with an outline of the motivation for the study, indicating WHY the Northern Alberta Development Council was involved. The chapter then turns to a broad description of the study area, to provide an understanding of the geographic region of focus, or WHERE its main activity lay. This is followed by a description of the organizational aspects of the study, indicating WHO was involved.

The balance of the chapter presents the terms of reference, or WHAT was to be done; and the approaches, methods and limitations of the study, indicating HOW it was performed. The last section briefly describes the content of the balance of this report.

1.2 MOTIVATION FOR THIS STUDY

Since its formation in 1963 the Northern Alberta Development Council has worked through its own Act to become a catalyst to advance the development of northern Alberta. The promotional, facilitating, and coordinative roles of the Council have been directed towards social and economic development, the development of northern communities and the services they require, and the development of particular government services and programs. While the Council has no direct responsibility for service delivery, its purpose has clearly been to influence line departments e.g. Economic Development, Hospitals and Medical Care, Social Services and Community Health, and Advanced Education and Manpower, in the interests of northern development.

The extensive natural resource base of northern Alberta provides ample scope for Northern Alberta Development Council to carry out its work of increasing economic opportunities in the area. Its social development mandate, however, obliges it to also consider the adequacy of current and future delivery of social programs such as Adult Education and Training for the people who currently are, and expect to be, residents of the north.

In 1975 the Northern Alberta Development Council established for itself goals in four general areas:

* Economic Development,
* Development of Communities,
* Education,
* Government Services

A major review of these goals in 1979 reaffirmed that adult education/training should continue to be a Council priority. While the Student Bursary Program, created in 1974, had been the major Northern Alberta Development Council thrust in the area of Education, the reaffirmation of these goals clearly suggested efforts would be directed towards education in the future.[1]

In 1980 several studies were commissioned by the Northern Alberta Development Council as a preliminary step towards a comprehensive review of adult education. These reports include: "Training Programs Available to Native People in Northern Alberta" by M.T.B. Consultants; "Socio-Economic Overview of Northern Alberta" by Co-West Associates (jointly funded by the Department of Regional Economic Expansion - DREE); and a "Projection of Highly Qualified Manpower Requirements in Northern Alberta 1981-1985" by the Management Advisory Institute. In addition, the Council supported a major brief presented to it by Native Outreach, dealing specifically with barriers relating to training and employment for Native People.* The issues in this brief were detailed in a further report commissioned by Native Outreach and jointly funded by the Council and entitled "Opportunities for Native People to Participate in Economic Development in Alberta" by Thomas Owen & Associates.

The culmination of these initiatives in the area of adult education/training came with the adoption of the following motion by the Council in August 1980:

> "That based on results of past studies and preliminary results of ongoing research relating to manpower and educational needs, that the Northern Development Branch staff be requested to begin an extensive study of the entire training/adult education system in northern Alberta with the possibility of conducting a workshop to review major research findings in the spring of 1982".

The study which follows is presented as a partial response to the Council's motion. It will form a major input into the workshop on adult education/training in northern Alberta being planned by Northern Alberta Development Council staff for June 1982.

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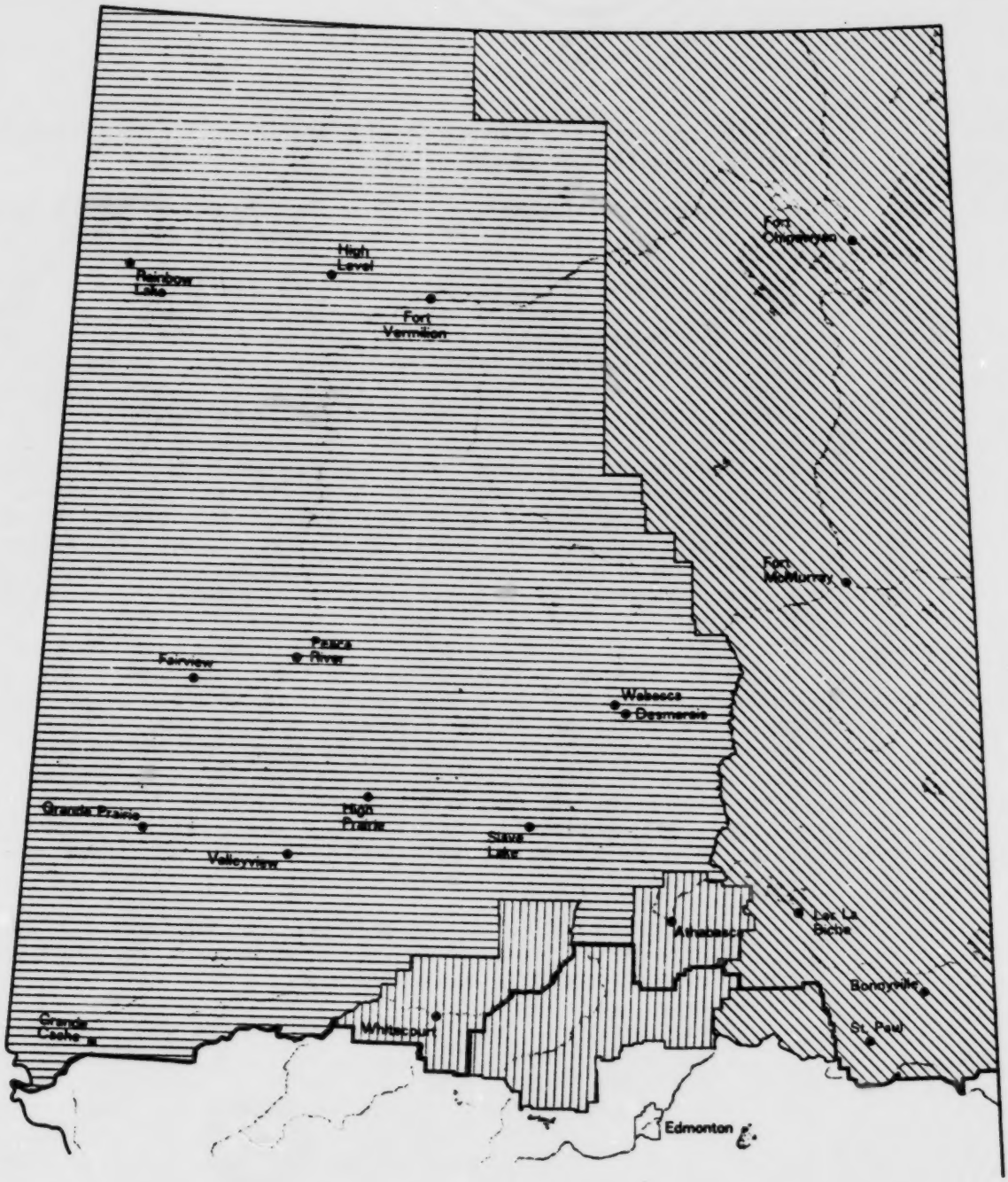
* Throughout this report, the term "Native" includes Status, Non-Status Indians and Metis

(Note: Numbered Notes refer to bibliographic references at the end of each chapter; asterisks refer to notes at the foot of the page.)



NORTHERN ALBERTA DEVELOPMENT COUNCIL AREA

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Census Division 12

Census Division 13

Census Division 15

1.3 STUDY AREA

The Physical Environment

The study area for this report is northern Alberta, more specifically the area of designated responsibility for the Northern Alberta Development Council, as shown in Figure 1. It includes all of Census Division 15 and portions of Census Divisions 12 and 13. The study area encompasses more than half the land area of the province, while serving as home for less than ten percent of the province's population. Accordingly, its population density is very low compared to the rest of Alberta, and road distances between communities are considerably larger on average, than in the south.

Land forms in the study area range from highlands and rolling flatlands, to lowlands and muskegs. The study area is drained by two major river systems, the Peace and Athabasca, which eventually join to form the great Mackenzie river road to the Arctic. Approximately 76 percent of the area is covered by forest, while another 11 percent is used for agriculture. The remainder is rivers, muskeg, and lakes, including the two largest ones in the province, Lesser Slave Lake and Lake Athabasca.

Population

Based on preliminary 1981 Canada Census data, over 200,000 people resided in northern Alberta in 1981. Detailed information regarding the distribution of this population throughout the study area can be found in Appendix 1, Tables A1.1 through A1.3. In summary, the 1981 population was distributed as shown in Tables 1.1 and 1.2 on the following page. Salient points from these tables are:

* The majority of the population resided in Census Division 15, the western half of the study area,

* The most rapid growth over the five-year period occurred in Census Division 12, attributable in large part to the doubling of population in Fort McMurray. (Reference to Appendix Table A1.2 indicates that if the growth in Fort McMurray is excluded from the calculation the rest of the Division grew by 10.4 percent over the five year period).

* The majority of people lived in cities and towns throughout northern Alberta in 1981 with most of the others residing in rural or isolated settings.

Table 1.1

STUDY AREA POPULATION DISTRIBUTION
BY CENSUS DIVISION, 1976-1981

	1976	1981	% Change	% of Total, 1981
Census Division 12 (NADC portion)	56,244	75,429	+ 34.1	34.5
Census Division 13 (NADC portion)	13,987	16,542	+ 18.3	7.6
Census Division 15	106,993	126,824	+ 18.5	57.9
TOTAL	177,244	218,825	+ 23.5	100.0

Source: Statistics Canada, 1981 Census, Interim Report, January 1982

Table 1.2

STUDY AREA POPULATION DISTRIBUTION
BY TYPE OF MUNICIPALITY, 1976-1981

	1976	1981	% Change	% of Total, 1981
Cities and Towns	86,274	118,478	+ 37.3	54.1
Villages & Summer Villages	4,965	5,716	+ 15.1	2.6
Counties ID's & MD's	78,947	86,895	+ 10.1	39.7
Indian Reserves	7,038	7,736	+ 9.9	3.5
TOTAL	177,224	218,825	+ 23.5	99.9

Source: Statistics Canada, 1981 Census, Interim Report, January 1982

* The largest growth over the five-year period occurred in cities and towns. Fort McMurray accounted for a major part of this growth, but even if Ft. McMurray is excluded from the analysis, growth in cities and towns averaged 25.4 percent, or an annual average of 5.1 percent.

* For all of northern Alberta, growth over the five-year period was 23.5 percent, exceeding the growth rate of the province as a whole (which grew 20.1 percent, from 1,838,037 to 2,207,856). Thus the study area exhibited an annual average growth rate of 4.7 percent compared to the provincial average of 4.0 percent.

Table 1.3 lists the communities in northern Alberta with populations of 2,000 or more, by rank order by 1981 population. The majority of these larger communities have some form of adult education facility.

Table 1.3

Population of Northern Alberta Communities Over 2000 in 1981
(Ranked by 1981 Community Population)

	1976	1981	% Change 1976-8	Average Annual Growth Rate	Example Adult Education Facility
Fort McMurray	15,424	30,368	96.9	19.4	College
Grande Prairie	17,626	23,800	35.0	7.0	College
Peace River	4,913	5,768	17.4	3.5	Peace River Consortium
Whitecourt	3,878	5,450	40.5	8.1	--
St. Paul	4,351	4,800	10.3	2.1	Lakeland & AVC Lac La Biche Satellite
Grande Cache	4,116	4,453	8.2	1.6	--
Slave Lake	3,561	4,409	23.8	4.8	Community Vocational Centre
Bonnyville	2,948	4,333	47.0	9.4	Lakeland Satellite
Grande Centre	2,800	3,050	8.9	1.8	Lakeland Satellite
Fairview	2,273	2,838	24.9	5.0	College
High Prairie	2,364	2,469	4.4	0.9	AVC Grouard -Satellite
Swan Hills	2,012	2,442	21.4	4.3	--
Grimshaw	1,679	2,267	35.0	7.0	Peace River Consortium Satellite
High Level	1,562	2,135	36.7	5.3	Fairview Satellite
Cold Lake	1,372	2,056	49.9	10.0	--
Valleyview	1,716	2,016	17.5	3.5	--

Source: Statistics Canada, 1981 Census, Interim Report, January 1982

Note: "Satellite" refers to an office and/or classroom space used in the community under the auspices and administration of a parent institution.

As of the time of writing, additional information regarding age and distribution or other factors from the 1981 census was not available. However, 1976 information can be used as an indication of population characteristics, particularly as it relates to adult education.

With respect to age distribution, according to statistics presented in a recent Northern Alberta Development Council Study [2] 59.6 percent of the 1976 population in Census Divisions 12, 13, and 15 were aged 15 to 64. (This proportion is lower than the provincial statistics of 65.1 percent, due in large part to a higher number in the 0-15 category in northern Alberta). Assuming that the population of 15 to 64's has not changed much between 1976 and 1981, roughly 130,300 persons in northern Alberta fall into this age group in 1981. Other data presented in section 3.2.3 estimates higher numbers in this age group, about 138,000. The importance of this population is that it is the major target for the labour market and adult education and training services, and therefore represents the maximum potential for both.

Economy

A major socio-economic review of the study area funded by the Northern Alberta Development Council and carried out by Co-West summarized the economy of northern Alberta as follows:

* "As of 1976, the labour force of the north was largely employed in the Services and Trades (45%), Agriculture (26%), Manufacturing, Construction, Communication and Transportation (20%), and Energy and Forestry (9%). It is anticipated that there will be more manpower required especially if the large mega-projects proceed in the Fort McMurray and Cold Lake areas."

* "A description of the various sectors of the northern economy includes comments on the primary industries of fishing, hunting and trapping, point out the important role that hunting and trapping play for many Native people. Commercial fishing is in decline in the area. Agriculture is seen as an important industry with possibilities for expansion but its relative importance will decline as the heavy oil sector continues to grow. The future for forestry looks good in the area especially if a commercial market for poplar can be developed. The outlook for mining both of coal and tar sands appears very promising. Work is also proceeding on other minerals such as iron ore and silica sands. The northern economy is rich in primary resources with great possibilities for expansion."

* "The manufacturing sector is not well developed in the north. Many businesses in this classification are small ones such as bakeries, cabinet shops and upholstery shops and are concentrated in the Peace River area. The largest categories of manufacturing businesses in the north relate to forestry or food and beverages. This sector is not likely to grow except in relation to the oil industry."

* "The retail trade sector has been growing and is expected to continue to grow. The service sector did not grow recently in terms of the number of establishments primarily because two major northern industries (wood and agriculture) are subject to much economic fluctuation. There was some growth in the industries which cater to tourism. There was some consolidation into larger economic units. In southern Alberta, about 55% of total employment is in the service and trade industries while in northern Alberta the figure is 45%."

* "The future economic potential for the north is great, especially in terms of developing energy resources, water, tar sands, heavy oil, natural gas and coal. Other minerals are also present and show promise but current market conditions, distance from markets and transportation problems are not favourable for many of them."

* "The major limitations to the economic development of the north lie in the fact that external market forces largely determine the need for its natural resources. Any fluctuations in the political decisions outside the north also affect its development especially with respect to pipelines, tar sands plant development and oil and natural gas pricing. With a small, widely dispersed population, not well linked to markets at this time, local industries and businesses will develop slowly. There are a few exceptions to this, for example, the Grande Prairie and Cold Lake areas. Transportation links to markets must be improved and incentives to develop secondary industry in the area expanded. There is also a need to expand and upgrade the local work force. The other needs include serviced industrial land and sufficient community infrastructure."

* "It is the philosophy of Alberta's government to promote economic development in the north. To that end, Alberta entered into an agreement in 1978 with the Federal Government (Canada/Alberta North Subsidiary Agreement) which works to reduce several of the limitations previously noted. Alberta has also developed a large number of programs under various departments such as Tourism and Small Business, Economic Development, Agriculture and Housing to help develop the north. It is fair to note that Alberta has and will continue to provide a large range of financial and technical assistance to assure the north's continued economical and social development. Fundamentally, the north will continue to be a supplier of resources to other areas. The government is also taking measures to ensure that the negative impacts of rapid growth are dealt with." [3]

The observation on limitations to economic development of northern Alberta, made by Co-West in the second-to-last paragraph above may give rise to poignant reflection, after the experiences during the past year, i.e., since the May 1981 initiation of the Adult Education and Training in Northern Alberta Study. Fluctuations in external markets, for example wood products, have had a negative impact on northern Alberta, contributing to a downturn in the economy. Political decisions (and indecisions) such as the negotiations between the federal and provincial governments regarding the National Energy Program (pricing, revenue sharing, etc.), have had a major impact on potential future development. The fact that at the time of writing, the Alsands Fort McMurray project was cancelled and the Esso Cold Lake heavy oil project appeared to be shelved (although their pilot project was still operating and the Federal Government was reported by the Globe and Mail, May 1, 1981, to be ready to "push Cold Lake"), illustrates the very real problems inherent in attempting to project future economic development in northern Alberta.

More directly this situation has created a serious difficulty for reviewing Adult Education and Training in Northern Alberta in relation to future requirements. The assumption that certain of the mega-projects will proceed may contribute to the creation of unreasonable expectations that may never be realized. On the other hand, assumptions of a "gloom and doom" future could contribute to a reluctance to plan ahead at all. This would repeat the errors of the past, leaving northerners unprepared to take advantage of jobs and other economic development as they arise.

Observations on the Study Area

The study area is vast, with a growing population, whose rate of growth and development is affected strongly by external economic and political vagaries. These external forces affect all potential social development, including the future delivery of adult education and training, acting as a special constraint on directions for system development in the study area. The inherent unpredictability of these forces, and their particular impact on the study area, have made the 5 and 10 year economic windows through which the consultants attempt to view the future cloudy indeed. Although the Biblical phrase "For now we see as through a glass, darkly.. ." accurately describes the difficulty of developing specific study forecasts, the issues identified and strategic directions raised in this study will require attention if the population of the vast region of northern Alberta is to be served well in the short and intermediate terms.

1.4 STUDY ORGANIZATION

The client for the study is the Northern Alberta Development Council through its Northern Development Branch. Mr. Gerry Archibald, Director, Research and Analysis, and Mr. Roger Jackson, Northern Development Officer, both of the Northern Development Branch provided client direction during the study. To assist Northern Alberta Development Council staff in their work, and to facilitate study progress, a Steering Committee acting under the Chairmanship of Mr. Gerry Archibald, was formed. Members of the Committee were:

Gerry Archibald	Northern Alberta Development Council
Mike Cardinal	Employment Counselling and Relocation Services, Slave Lake
Eugene Dextrase	Northwest Regional Economic Development Council, High Level
Stephen Griew/ Doug Shale	Athabasca University
J.D. Harder	Alberta Education
Roger Jackson	Northern Alberta Development Council
Ted Langford	Alberta Vocational Centre, Lac La Biche
Michael Plumb	ACCESS
Rollie Seville	Alberta Advanced Education and Manpower
Harold Wynne	Adult Education Center, Peace River
Amy Zelmer	University of Alberta

Steering Committee members worked together with Mr. Archibald and Mr. Jackson to:

* Redraft the original terms of reference developed by Northern Alberta Development Council staff;

* Select and approve consultants for the study;

* Participate, according to individual time availability, in four special meetings whose purpose was to review progress, to deal with administrative issues, and to contribute ideas to the consultants;

* Review interim documentation produced by the consultants.

The Committee has worked diligently and thoughtfully on this project and their input collectively and individually is greatly appreciated. The assistance of the Northern Development Branch staff in collecting data additional to the study has also been valuable, especially as deadline time approached. Thank you Roger and Gerry.

The study was conducted by RMC Resources Management Consultants (Alberta) Ltd. who were formally appointed to carry out the required work in May 1981 according to a timetable specified by Northern Alberta Development Council staff.

1.5 TERMS OF REFERENCE

The February 5th, 1981 statement of Terms of Reference established by the Northern Development Branch of the Northern Alberta Development Council identifies the main purposes of the study:

> To develop models for structure for adult education and training which will speak to the needs of northern Alberta for the immediate future, for the next five and for the next ten years. The models will be based on the following elements:
>
> 1. A review of the adult educational programs and the vocational and academic education in northern Alberta in both public institutions and private industry.
>
> 2. A description of the educational training needs for adult educational, vocational training programs in northern Alberta.

3. An assessment of the strengths and weaknesses of the adult education system in the Northern Alberta Development Council area, listing the problems and feasible alternatives for improvement as well as evaluating the impact of the existing forms of basic education upon adult education.

4. Comparison of the degree to which the adult education and training needs are being met in the various subregions within the Northern Alberta Development Council area, and if possible to compare the findings to the rest of Alberta and to other provinces. [4]

A further set of 11 more specific task oriented questions were provided by the Northern Alberta Development Council as elaboration of the Terms of Reference above. These were organized by RMC into three broad question areas, and are restated below. [5]

WHAT DO WE HAVE NOW

* To review, summarize and document the literature available pertaining to the following:

  - vocational education systems and programs including up- grading and training programs;
  - University systems and programs;
  - Further Education Councils, their programs and services;
  - adult education needs and requirements;
  - industrial on-the-job training and upgrading.

* To provide an accurate statistical summary of what exists now in Northern Alberta Adult Education and Training programs and to describe any disparity which exists between northern and southern Alberta.

* To examine the degree of public input to program development, execution and evaluation and to suggest ways (if any) in which such involvement can be improved.

* To list and, in relation to overall adult education needs, to examine the training programs which presently exist in private industry.

* To examine the roles unions currently play in training and employment in northern Alberta.

HOW WELL DOES IT WORK

* To examine the service delivery system in the north and the effectiveness of the mechanisms in meeting northern needs, to project what services (if any) should be modified, improved or created to meet the adult education and training needs of northern Albertans and to determine how programs can be adjusted to meet these needs.

* To examine the various institutional, departmental and agency roles and goals with respect to the following criteria: compatibility, coordination, planning, duplication; and to determine if these factors have an impact on program delivery.

* To measure the success which vocational training programs have in preparing people for employment and industry.

WHAT WILL WE REQUIRE

* To specifically examine the role of adult education and vocational training in enabling northern Albertans to participate in mega projects.

* To examine the education and training available to persons with special needs.

* To determine and propose methods of monitoring the adult education and training needs of northern Alberta residents from both the academic and vocational points of view.

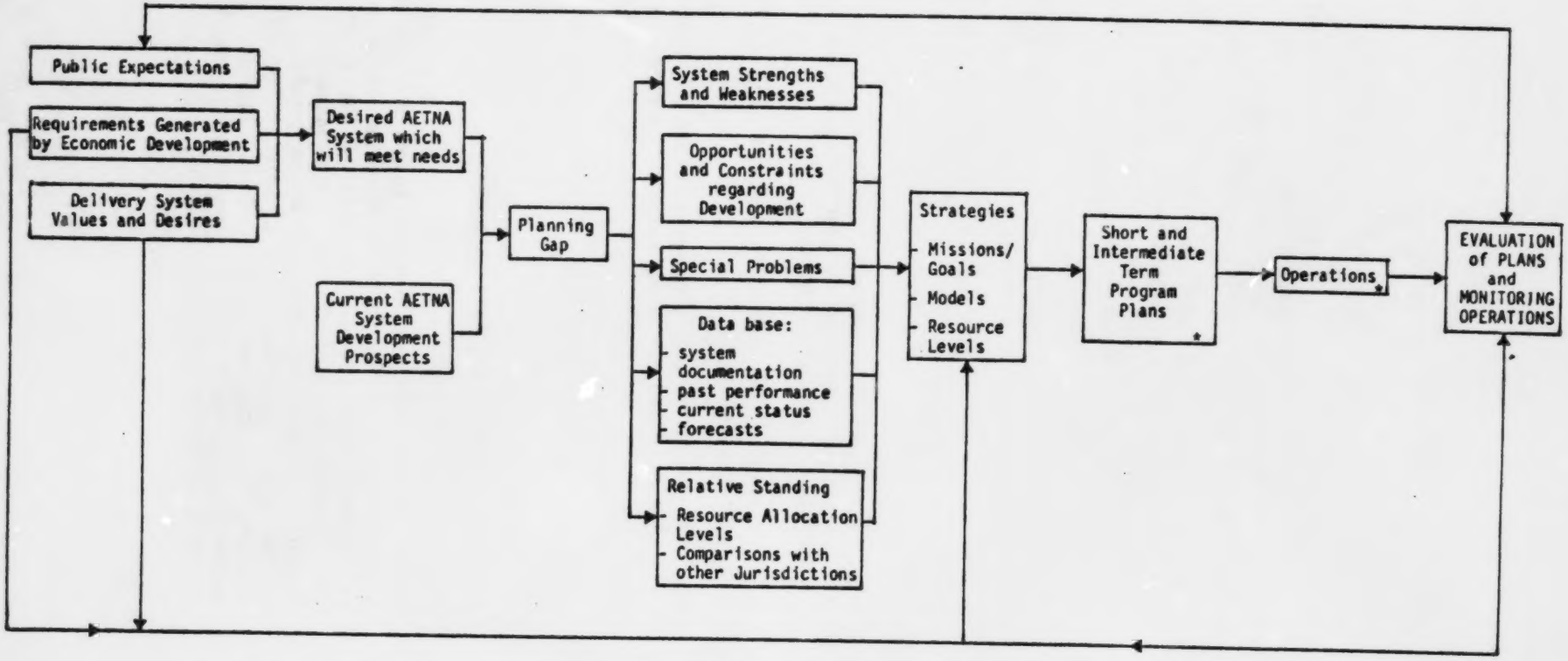
1.6 RESEARCH APPROACH AND DATA SOURCES

As is evident from the Terms of Reference, the area under investigation specified by Northern Alberta Development Council staff is exceptionally broad. To clarify the scope of the project, and thereby to make it more approachable, the consultants' proposal and work was based on three premises. First, the title of the study specifies that a "review" of adult education and training be carried out. This clearly lays emphasis on understanding what exists currently in Adult Education and Training in Northern Alberta (AETNA).

FIGURE 2

PROPOSED STUDY MODEL

ADULT EDUCATION AND TRAINING FOR NORTHERN ALBERTA (AETNA)



* Not included in project

Source: RMC Study Proposal - see Note 4, Chapter 1

The second premise is that the general purposes the Northern Alberta Development Council wishes to promote are focussed on people in the area. [1] This premise led to the decision by the consultants that within the limited time and resources of the study, emphasis would be on field work to obtain information on opinions and feelings of people in the area served by the Council, as well as stakeholders involved in the delivery of Adult Education and Training in Northern Alberta services to the region.

Third, since financial limits on the study would not permit both detailed investigation of individual needs, program availability, and institutional performance, as well as system wide structure and issues, priority was given to larger scale issues. Accordingly, the methodological focus was on strategic planning.

Strategic Planning emphasizes the understanding of system wide issues, needs and performance, in order to establish future aims and goals, and the general means by which these may be approached. Accordingly, analysis is directed towards establishing the existence and nature of a "planning gap", which reflects the difference between the current Adult Education and Training in Northern Alberta and the future, desired Adult Education and Training in Northern Alberta. As Figure 2 shows, the desired Adult Education and Training in Northern Alberta is a composite of public expectations; requirements generated by economic development; and, the values and desires of professional staff, institutions, agencies and government departments, which make up the delivery system.

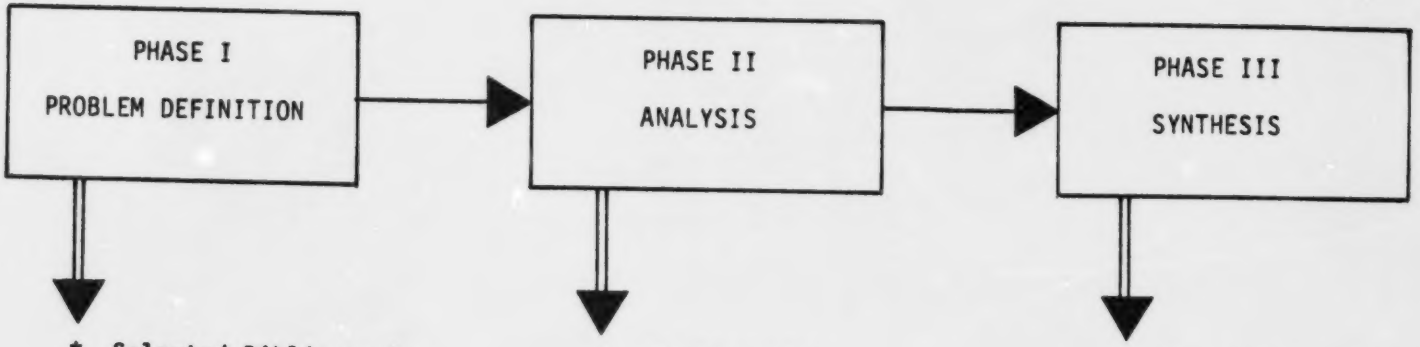
The end point of Strategic Planning is the development of major directions for the future. Strategic Planning provides a framework within which intermediate and short term planning, operational development, and functional and physical planning can occur [6].

The project itself was organized into three phases. The first phase, PROBLEM DEFINITION, sought to establish an issue framework based on the literature, interviews with each Steering Committee member and interviews with a sample of stakeholders.

Having established an issue framework or orientation, the second stage, ANALYSIS, had as its prime purpose the investigation and collection of field and stakeholder opinions on adult education and training in northern Alberta.

FIGURE 3

PROPOSED AETNA PROJECT ORGANIZATION



Outputs

PHASE I	PHASE II	PHASE III
* Selected Bibliography	* Questionnaires	* Regular reports/meetings
* Issue Papers (3)	* Field Visits	* Interim reports
* Seminar on Issues	* Stakeholder Interviews	* Final report
* Work Plans Phase II	* Regular reports/meetings	* Participation in NADC workshop

Source: RMC Study Proposal - See Note 4, Chapter 1

The third phase of work, SYNTHESIS, was geared to bringing together the efforts of the first two phases, adding opinions from a small number of briefs received, and developing a needs orientation as a result of anticipated economic development in northern Alberta. During the third phase, consultants developed conclusions, formulated models, and identified basic directions for future Adult Education and Training in Northern Alberta. [5]

Data sources for the project fall into three categories. First, important data was obtained from field and other structured but open ended interviews. These were held with individual Steering Committee Members, representatives of delivery agencies (both public and private), and with clients and stakeholder groups who are current or future consumers (or consumer advocates) with direct interests in the quantity and quality of services provided. As listed in Appendix 3, well over 200 interviews were conducted. The opinions, ideas and concerns raised during these interviews form the fundamental basis of this report.

The second category of data sources was existing documentation on manpower, education and economic development published by Northern Alberta Development Council or other agencies. In view of RMC work in resource economics, particularly with mega projects, internal RMC expertise and data were also brought to bear on this project.

The third category of data sources was financial and statistical utilization data. In the main, this data came from Alberta Advanced Education and Manpower reports, although field interviews with representatives of individual institutions serving northern Alberta were also helpful. Lack of consistency and compatibility in data collection and reporting created some problems for system-wide analysis; this matter should be addressed in the future.

1.7 STUDY METHODS

Three principal study methods were used by the consultants: major reviews of the literature, existing documentation and previous studies; extensive field interviews; and internal study team discussions and debate. These three methods, together with adult education experience, combined to shape and develop an informed opinion for the consultants on adult education and training.

Of the three categories of data used to formulate this report, interview data is the "softest" but most important for the consultants, given the emphasis of the report towards expressed views and opinions on adult education and training. Separate instruments were developed for interviewing institutional representatives, employers, and other individuals. These are found in Appendix 4.

The questionnaires were reviewed and accepted by the Steering Committee, and each member was interviewed using the individual form of the instrument. Open endedness in the questions and the nature of the subject matter tended to produce comments that did not always "fit", and often left certain areas untouched, because of limited involvement or interest on the part of the person interviewed.

Sorting of the data therefore presented an interesting problem. Since all interviews were documented, and since most of the consulting team members have previous personal experience in education (including post-secondary education in the study area), the sorting was done by the study team, through iterated staff discussions. Team members synthesized their major summary observations, compared them with the rest of the team and presented them to the study group as a whole. The resulting issues were then raised with the Steering Committee to obtain their inputs, observations and critique.

Accordingly, this report presents views based on a large number of interviews, filtered through the eyes of the consultant.

The field work for the study included individual meetings and interviews with key regional/community contacts. Six regions were covered in the field work:

		Number of Respondents
Region 1	- Fort McMurray - Anzac/Fort Chipewyan	31
Region 2	- Cold Lake/Grand Centre/Bonnyville	22
Region 3	- St. Paul/Lac La Biche	37
Region 4	- Slave Lake/High Prairie	21
Region 5	- Grande Prairie/ Fairview/Peace River	24
Region 6	- High Level/Fort Vermilion/La Crete	38
Other	- Involved in Northern Education, but Based Elsewhere, e.g. Edmonton	52
Total		225

RMC

The choice of regions was mutually agreed upon between the Steering Committee and the consultants during a Steering Committee meeting. The basic strategy for selection lay in balancing geographic coverage with coverage of communities whose needs represented special cases. Interviews with individuals in each region were arranged ahead of time by the consultants or by Northern Alberta Development Council staff, and were generally carried out as scheduled, apart from a small number of "no shows". Assistance with the completion of a small number of interviews in the Slave Lake area was provided by Northern Alberta Development Council staff, who met with individuals identified by the consultants and used the same interview instruments.

"Harder" data came from documentation found in various reports (e.g. Alberta Advanced Education and Manpower) and studies commissioned by various agencies, including the Northern Alberta Development Council. The reliability of such data has been generally accepted, unless challenged by Steering Committee Members, or RMC experience. All data used is sourced, and results obtained by the consultants based on primary work by others are identified.

Finally, population data used has come from Northern Alberta Development Council documentation or from Statistics Canada. While preliminary 1981 census data was available at time of writing, it did not include age distributions. Accordingly, Alberta Bureau of Statistics, Series 5 Projections were used. These were based on 1976 data and therefore have the usual limitations as projections given their age.

1.8 DEFINITIONS AND PRINCIPAL LIMITATIONS

The subject of this report is Adult Education and Training in Northern Alberta. At the outset of the study, consistent with Northern Alberta Development Council's terms of reference, RMC chose not to specify a definition for the subject matter at hand. Rather, a pragmatic approach was taken. "Adult" clearly implied that the investigation would cover those education services provided to individuals beyond the approximate age of over 18, most often in a post-secondary education or work related milieu. Additionally, since most of the interviews naturally turned to employment oriented education and training relevant to people in the area, the study concerns itself with these matters. Thus the primary thrust of the study is towards issues affecting vocational education, especially those relevant to the study area. Adult education in other areas, such as recreational learning is not of primary interest in this report.

The focus of the report is on the general status of the "system" of Adult Education and Training in Northern Alberta as it currently exists and on the gaps which should be closed to better serve current and future needs. Detailed manpower projections to serve the total requirements of northern Alberta are not addressed in this report, although a discussion on manpower and training issues relating to needs and impacts of anticipated mega-projects does form part of the subject matter of Chapter 3.

The development of detailed manpower projections to serve economic needs would be extremely helpful in formulating detailed short and long term adult education requirements. Such work is beyond the scope and terms of reference of this review and the proposal submitted to carry it out. If undertaken at all, a detailed manpower study for the whole of northern Alberta would have to be based on a detailed future economic forecast for the study area. While the consultants believe much better understanding of needs would result from such a study, its detailed results may be of limited value given the political and economic experiences of the past year and the questionable nature and capablities of large scale, detailed forecasting and central planning. However, the prospects of obtaining and acting confidently upon such information appear somewhat dismal.

Identification of current issues, specification of anticipated directional changes, and recommendations of strategies to satisfy future requirements, nevertheless are deemed feasible by the consultants. Accordingly, this study attempts to address these within the following limitations.

The most apparent limitation of the study is the degree of detail in the analysis of the current and future Adult Education and Training in Northern Alberta, despite the intention of the Northern Alberta Development Council Terms of Reference. This limitation may, however, be a matter of perception. In attempting to grasp the enormity of needs, and the constellation of services currently provided in Adult Education and Training in Northern Alberta, as well as those required for the future, several "cuts" at the Adult Education and Training in Northern Alberta problem will have to be taken. This study provides the first "cut", integrating a broad range of issues and concerns, which together begin to define a cohesive shape and structure for Adult Education and Training in Northern Alberta. The focus on larger scale issues is, therefore, a potential strength; the lack of detail in some areas, is a matter of priority in the face of a limited number of dollars and mandays available to carry out the tasks requested by Northern Alberta Development Council.

While the study included field interviews with Native representatives, the special problems evident in the delivery of Adult Education and Training in Northern Alberta services to Native People may require some further study efforts. High levels of unemployment, the special effects of cultural differences, lifestyle factors such as migratory patterns, the thorny problems of jurisdictional issues between the Federal and Provincial Governments made this area of the study, and consequent recommendations, particularly problematic. What appears to be clear, however, is that any further study or the existence of jurisdictional issues cannot be allowed to paralyse the system and avoid necessary action.

Another limitation of the study is the quality of interview data obtained and its interpretation. As a response to Northern Alberta Development Council's people orientation, RMC chose to emphasize field interviews in the study rather than statistical or economic analysis. The scope of the study, resources available to it, and certain technical issues suggested that detailed sample surveys techniques were not appropriate. Accordingly, the results of the study are a synthesis as seen through the eyes of the consultants, and therefore subject to bias. RMC was asked to consult, that is, investigate and report our findings, thoughts and opinions on Adult Education and Training in Northern Alberta. This report attempts to do so in the context of what was submitted as RMC's proposal to Northern Alberta Development Council.

The validation process to confirm whether the major issues are correct or complete will occur through the Workshop in June 1982, after which final recommendations will be presented to appropriate departments and agencies. A recognition that this report, the process of distributing it for comments, and the Workshop, together form the study of Adult Education and Training in Northern Alberta, should minimize the limitations raised concerning interpretation and synthesis validity.

Finally, the degree of interest in the study and in issues varied considerably among Steering Committee members, field and stakeholder representatives interviewed, and Northern Alberta Development Council staff associated with this project. Individual interest in Adult Education and Training in northern Alberta issues tended to reflect varying degrees of vested personal or institutional interest, and the relative priority of other matters. It appears that Adult Education and Training in Northern Alberta is not the most critical issue, and therefore not as high a priority for people in the area, as for example, the quantity and quality of health care services, or the immediate concerns of unemployment.

Since interest in Adult Education and Training in Northern Alberta issues appears secondary, based on the people interviewed, some of the more strongly articulated interests and needs expressed to the consultants by institutional and other delivery oriented stakeholders of Adult Education and Training in Northern Alberta, must be balanced by the wishes and perceived needs of the public served. Otherwise, vested delivery system interests may lead to the identification of spurious needs, as well as spurious limitations of this study. Both would detract from the consideration of major issues raised.

1.9 STRUCTURE OF THIS REPORT

This report is in four major chapters and a set of appendices. Following the Introduction and Background provided in this chapter, Chapter 2 concentrates on the Adult Education and Training in Northern Alberta of today, by describing educational resources available in the study area; by compiling data on their relative characteristics compared to resources in other parts of the province; and by commenting on their strengths and weaknesses. Chapter 3 deals with Adult Education and Training in Northern Alberta needs and requirements in the future, including those generated by potential mega-projects, as well as needs perceived by those interviewed. Chapter 4 concludes the report by linking problems with conclusions and strategic level recommendations to help close existing and foreseen planning gaps. The second volume of Appendices lists tables, a bibliography, individuals interviewed and other supporting data.

NOTES TO CHAPTER 1

1. Northern Alberta Development Council. Annual Report 1979-80

2. Northern Alberta Development Council. Trends in Northern Alberta, 1980.

3. Co-West Associates. A Social and Economic Overview of Northern Alberta, 1981, pp. 11-13.

4. Northern Development Branch, Northern Alberta Development Council Terms of Reference for a Consultant Study, February 5, 1981

5. RMC Resources Management Consultants (Alberta) Ltd. Review of Adult Education and Training in Northern Alberta, A Proposal to the Northern Alberta Development Council, March 9, 1981

6. Steiner, George A. Strategic Planning, What Every Manager Should Know, Macmillan Publishing Co., 1979

CHAPTER 2: ADULT EDUCATION AND TRAINING IN NORTHERN ALBERTA TODAY

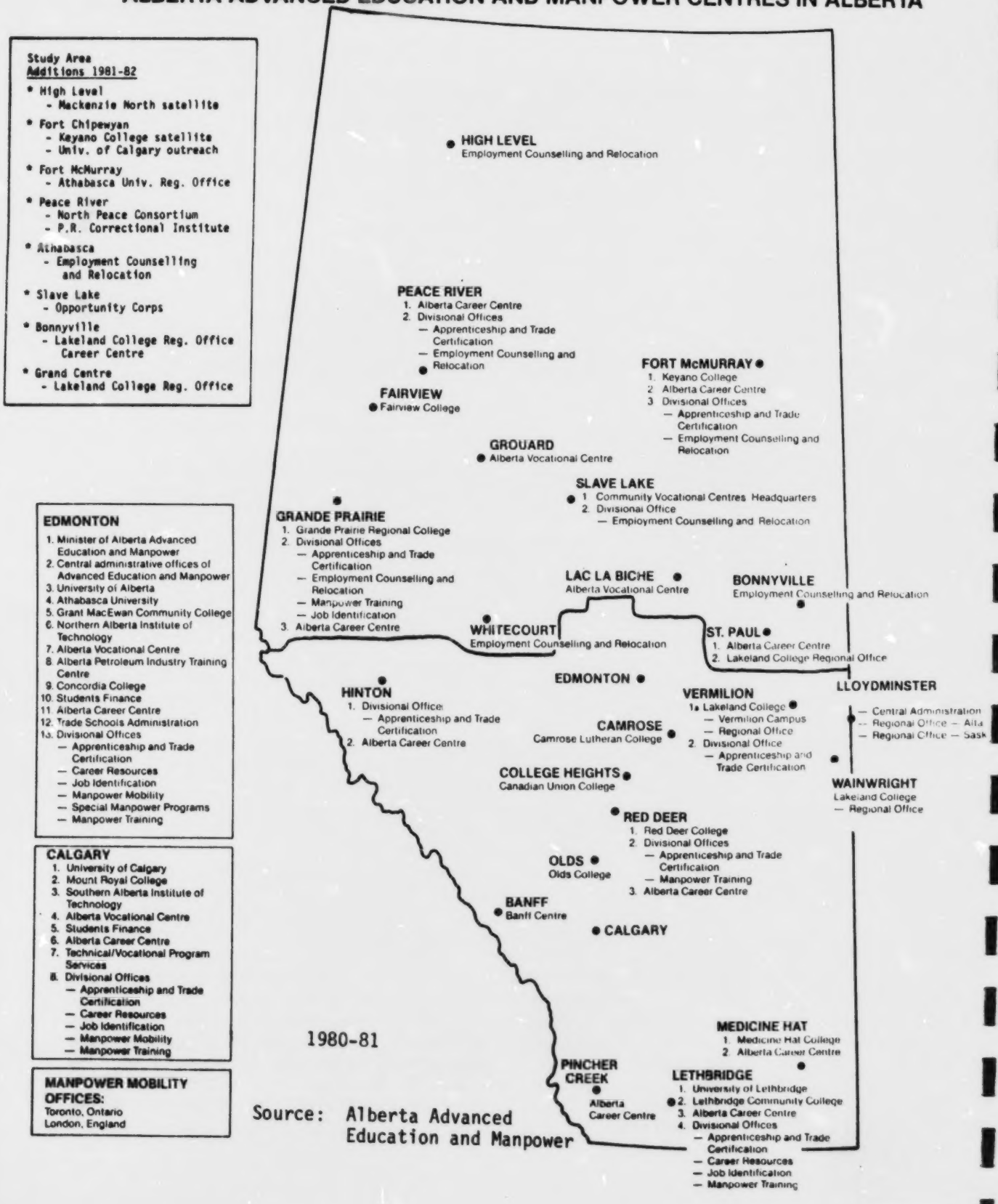
2.1 OVERVIEW

The purpose of this chapter is to address two basic questions of the study at the system wide level: WHAT DO WE HAVE NOW? and HOW WELL DOES IT WORK? The chapter is divided into nine sections of which sections 2.1 through 2.4 address the first question.

In the description of the status of the adult-oriented educational and training system operating in northern Alberta today, emphasis is given to institutions offering credit programs in the study area. The focus, therefore, is primarily on the four Colleges, the two Adult Vocational Centres, the Community Vocational Centres and the three Universities located in and/or operating in the region (see Figure 4). For each institution, summary information is provided regarding mandate, programs available, future directions and enrolment data.

The enrolment statistics are provided primarily to give some sense of the population served by each institution, as well as some historical sense of changing enrolment patterns at each institution. Despite the assistance of the Northern Development Branch NADC staff, who telephoned institutions to confirm preliminary data obtained by RMC, considerable difficulty was encountered in collecting and analyzing the enrolment data. This was primarily due to differing methods among institutions of collecting and reporting enrolment data. Colleges, for example, could provide information regarding full-time and part-time enrolments in credit courses, but this might not reflect their additional service load in terms of Apprenticeship training and short course programming. Obtaining comparable information for the Vocational Centres was even more problematic for a variety of reasons, such as provision of off-campus training, attrition from programs, and different formulae for calculating full-time equivalent enrolment. The Full-Time-Equivalent (FTE) data that are provided generally are based on the Alberta Advanced Education and Manpower formula of the FTE being equivalent to 160 student days. Readers are urged to treat the enrolment figures as a very general picture of the institution described. They are not adequate to be used to draw comparisons between or among institutions without further interpretation by local representatives of the respective institutions.

ALBERTA ADVANCED EDUCATION AND MANPOWER CENTRES IN ALBERTA



Source: Alberta Advanced Education and Manpower

Following the description of the institutions located in the study area, brief descriptions of other agencies and institutions which provide services to the area are provided, including public agencies, private schools, and industry.

Information in this chapter is based on interviews held with representatives of Alberta Advanced Education and Manpower, industry, and each of the post-secondary institutions operating in the study area, except for the private schools listed in Section 2.2.6. Information on the latter was obtained from publications by Alberta Advanced Education and Manpower. Apart from two agencies, all other representatives of providers of educational services described in this Chapter were interviewed personally, by telephone, or through correspondence. Prior experience formed the basis for the description of these remaining two providers, the Rural Education and Development Association, and the Alberta Correspondence School.

Following the description of existing resources, section 2.3 provides an overview of mechanisms for public input to program development, etc. Baseline statistical data regarding expenditures of funds on adult education in northern Alberta are presented in Section 2.4, with comparisons with other parts of the Province. Participation rates are also discussed.

Section 2.5 reports findings from the literature regarding problems facing northerners with respect to employment and training in northern Alberta. Findings from the field research regarding Strengths and Weaknesses of the current system as perceived by northern residents are reported in Sections 2.6 and 2.7 . The matter of Regional Variations is then discussed, followed by Observations and Conclusions.

2.2 DESCRIPTION OF EXISTING INSTITUTIONAL AND AGENCY RESOURCES

2.2.1 Public Colleges

There are four publicly administered colleges located in the study area: Fairview College, Grande Prairie Regional College, Keyano College in Fort McMurray, and Lakeland College with offices in St. Paul, Bonnyville and Grand Centre. Each College is governed by a Board of Governors, whose members are appointed by the Minister of Advanced Education and Manpower, often based on recommendations from the public. The summary descriptions of each college which follows include enrolment figures. More detailed data, such as specific course offerings and expenditures are provided in Appendix 1 and in Section 2.4 below.

* Fairview College

Since becoming a public college in 1978 Fairview College has undergone several changes. Growth in student numbers has been accompanied by a new building program that will enhance the overall college operation. Program offerings range from apprenticeship training to two year diploma programs in various technologies.

Fairview College has expanded its offerings to communities in the surrounding area and has plans to do more in the future. The College is a member of the North Peace Adult Educational Consortium and has major responsibility for the Mackenzie North Project in the High Level/Fort Vermilion area. Fairview provides programs in agriculture for the Peace River Region.

The College works closely with Further Education Councils in the region and acts as a hosting authority for the Councils when requested.

Fairview has had a jurisdictional overlap with Grande Prairie College in the past. This now appears to be resolved through an agreement reached by the two institutions. They have agreed in principle that Fairview College will offer trades training and Grande Prairie, Arts and Sciences. As an example of this agreement, joint planning involving staff of both Colleges occurred in 1981 on the development of an electrical apprenticeship program facility. The functional program for the future facility recognizes that Fairview will be providing the training in Grande Prairie College facilities, in the City of Grande Prairie, since that is where the primary needs are likely to be.

Based on interviews with college officials, students and employers, Fairview College graduates have little difficulty finding employment, and college officials feel that many more could find jobs if enrolments were higher.

Among Fairview College's immediate priorities are: consolidation of older programs, provision of some transfer programs to NAIT, a review and upgrading of agricultural programs, more programs in the region, and attraction of more Native students to its programs.

Credit Enrolments - Fairview College

	1978-79	1979-80	1980-81	1981-82
Fulltime	373	383	N/A[1]	685
Part-time No.	18	110	N/A	N/A
Part-time FTE	2	47	N/A	56
Total FTE	375	430	471	741

1. N/A designates data Not Available at time of writing

Source: AAE & M Annual Reports for 1978-79 and 1979-80
Registrar for 1980-81 and 1981-82

* Grande Prairie Regional College

The college offers a variety of post-secondary programs ranging from one and two year career programs to a two-year University transfer program. It is a member of the North Peace Adult Educational Consortium and offers courses in various communities throughout northwestern Alberta. The College works closely with Fairview College and the Alberta Vocational Centre Grouard to provide services to the Peace River Correctional Institute. The College also has developed community outreach programs in the region, although courses provided tax the logistical and administrative capabilities of instructors and frequently have small numbers of students.

The College is attempting to strengthen its ties to the communities it serves and to raise community awareness about its programs. Cultural and entertainment programs and events offered through the College's large well-equipped theatre-auditorium complement its community role.

According to College officials, financial difficulties have created problems for the College making it difficult to fulfill their mandate particularly in regional programming.

College officials believe that graduates from the College have generally been successful in finding employment or transferring to other institutions to complete their programs.

RMC

Priorities for the College include program development which enhances the possibility of degree completion in the region (involving co-operative relationships with provincial universities), programming for the disabled and programs of a vocational or career nature which prepare students for employment or transfer for future study at other institutions.

Enrolments at the College have declined slightly over the past few years. However, indications are that the 1981-82 enrolments are up significantly.

Credit Enrolments - Grande Prairie Regional College

	1978-79	1979-80	1980-81	1981-82
Fulltime	585	487	N/A	796
Part-time No.	957	894	N/A	N/A
Part-time FTE	145	137	N/A	182
Total FTE	730	624	685	978

Source: AAE & M Annual Reports for 1978-79 and 1980-81
Registrar for 1980-81 and 1981-82

* Keyano College - Fort McMurray

Keyano College is a diversified college offering programs ranging from six week industrial worker training to University transfer. One major focus of their offerings is specialized training for employment in oilsands projects and related industries. Keyano works very closely with major employers such as Syncrude to insure that their programs are meeting industry standards.

Some of Keyano's programs are mobile and can be transported to other parts of the Province, heavy equipment operation being an example. Recently, Keyano offered its heavy equipment operation program in the Lakeland region on a brokerage basis with Lakeland College.

Keyano views its mandate as one of providing educational and cultural leadership in the Fort McMurray area, offering a full range of educational services to the people.

RMC

The College would like to have more funding for their outreach programs in the surrounding area. Staffing has also been a problem for the College since it is almost impossible to pay trades instructors wages which are competitive with those paid by industry.

Graduates of Keyano's programs have in the past experienced little difficulty in finding jobs in the "boom" economy of the Fort McMurray area according to college officials.

Keyano sees its immediate priorities in terms of providing a wide range of training choices through regular programming or brokerage from other institutions for the adults of the area. Preparation for future mega-projects such as Alsands is also a major priority.

Credit Enrolments - Keyano College

	1978-79	1979-80	1980-81	1981-82
Fulltime	381	410	462	N/A
Part-time No.	780	477	757	N/A
Part-time FTE	97	59	N/A	N/A
Total FTE	478	469	545	N/A
"Total Population"	1,236	1,242	1,245	

Source: AAE & M Annual Reports for 1978-79 and 1979-80 Registrar 1980-81; Demographic Study for "Total Population"

* Lakeland College - St. Paul, Bonnyville, Grand Centre

Lakeland College has its main campus and head office outside of the study area but it does have regional offices in three centres within the study area, namely St. Paul, Bonnyville and Grand Centre.

Programs offered in centres in the study area include academic upgrading, secretarial arts and several pre-employment trades. The College plans to increase its offerings substantially in the future.

Lakeland has cooperative arrangements with Alberta Vocational Centre Lac La Biche to offer academic upgrading programs throughout the region and to offer training programs to the St. Paul Correctional Centre.

RMC

The college has been hampered in its ability to fulfill its mandate due to a lack of permanent facilities in these three centres.

Lakeland's enrolments in programs in the three major centres have increased significantly since beginning in 1975. Construction of the Esso Resources plant at Cold Lake implies continued growth if the project proceeds, with the strength of the impact depending on the scale of the plant.

Lakeland expects to continue to fulfill its mandate in the future by continuing to develop and offer a full range of post-secondary educational services to the region it serves.

Credit Enrolments - Lakeland College

	1978-79	1979-80	1980-81	Semester 1 1981-82
Fulltime	471	429	N/A	455
Part-time No.	406	626	N/A	49
Part-time FTE	30	47	N/A	6
Total FTE	501	476	N/A	461

Source: AAE & M Annual Reports for 1978-79 and 1979-80 Registrar 1981-82;

Credit Enrolments - Bonnyville, Grand Centre, St. Paul only

	1978-79	1979-80	1980-81	1981-82
Total FTE	55	80	109	N/A

Source: Registrar

2.2.2 Adult Vocational Centres

There are two Adult Vocational Centres (AVC) located in the study area, Alberta Vocational Centre Lac La Biche and Alberta Vocational Centre Grouard. Both are administered as line institutions under direct responsibility of Alberta Advanced Education and Manpower.

* Alberta Vocational Centre Lac La Biche

Alberta Vocational Centre Lac La Biche, with its main campus in Lac La Biche, serves communities in northeastern Alberta, many of which have large Indian and Metis populations. Alberta Vocational Centre Lac La Biche, along with the other Alberta Vocational Centres in Alberta, has as its mandate the provision of programming to educationally disadvantaged adults of the region - a second chance institution. Their offerings include basic academic upgrading, pre-employment trades and para-professional, trades and business programs, all designed to provide skills that lead to employment.

A number of satellite programs are delivered throughout the Lac La Biche region, and the centre would like to expand this phase of their programming. An Alberta Vocational Centre office was established in St. Paul in 1981. In addition to offering their own programs, the Alberta Vocational Centre brokers courses from other institutions such as NAIT and SAIT. Lac La Biche has initiated a close working relationship with Lakeland College in providing academic upgrading programs throughout the area and at the St. Paul Correctional Centre. Planning is underway to build a new campus.

According to students and staff, many employees express a preference for Alberta Vocational Centre graduates, most of whom have little trouble getting employment in trades, business and paraprofessional areas.

Enrolments at the Alberta Vocational Centre have shown a steady increase over the years. The lack of adequate facilities is a limiting factor on their enrolments. There simply is not enough room for any more students.

Credit Enrolments - ACV Lac La Biche

	1978-79	1979-80	1980-81	1981-82
Registrations	643	659	775	
FTE's	214	236	272	
Full-time	-	-	-	442
Part-time	-	-	-	962

Source: AVC Lac La Biche (on campus only)

RMC

* Alberta Vocational Centre Grouard

Alberta Vocational Centre Grouard is in many ways similar to Alberta Vocational Centre Lac La Biche. Its mandate is to provide programming to the educationally disadvantaged in their region. Again the primary target population for students are Indians and Metis. The main campus of the centre is located in Grouard with classrooms located in several communities throughout the area. Alberta Vocational Centre Grouard serves the people of the Central Peace, Lesser Slave and outer lakes regions and north central Athabasca. It is also a member of the North Peace Adult Education Consortium.

Alberta Vocational Centre Grouard continues to show an increase in enrolment each year. Program offerings vary from basic academic upgrading to several employment related programs such as pre-employment welding and carpentry. The centre works closely with various post-secondary institutions in the province to jointly offer more programs to their students. These have included Grant MacEwan Community College, Grande Prairie Regional College and the University of Calgary.

The Centre has an extensive range of general interest courses available to residents of the area.

Graduates of Alberta Vocational Centre Grouard's programs are able to get jobs related to their training, and employers appear generally satisfied with the graduates.

Credit Enrolments - AVC Grouard

	1978-79	1979-80	1980-81	1981-82
Registrations	1300	1518	N/A	N/A
FTE's	384	425	N/A	N/A
Enrolments	-	-	2741*	N/A

* Included registrations at Mackenzie North, now operated by Fairview College

Source: AAE & M Annual Report 1978-79, 1979-80
AVC Grouard for 1980-81

RMC

One of the main problems faced by Alberta Vocational Centre Grouard and Alberta Vocational Centre Lac La Biche is the present constraint of being able to offer only programs of one year duration or less. This limits the range of programs and restricts the options available to local students. This situation is currently under review and Alberta Vocational Centre Lac La Biche is planning to seek approval for a two year Social Service program in the near future.

Closely linked to problems of program length is the term Alberta Vocational Centre - what does it mean and who are the "disadvantaged" students they are trying to reach? The formal use of the term "disadvantaged" leads to role and purpose confusion from an institutional point of view, and leaves the adult population to be served confused as well. Many interpret "disadvantaged" to mean "Natives" and no one else.

2.2.3 Community Vocational Centres (CVC)

The mandate of the Community Vocational Centres is to provide academic upgrading of 0-12 for adults and to provide job-related experience in the trades. With headquarters in Slave Lake, the centres offer services throughout the Athabasca, Lesser Slave Lake and Peace River regions of northern Alberta.

The courses offered by the Community Vocational Centres are adapted to meet specific community needs. They are designed to be highly mobile so that they can be delivered in any community that has a need. The majority of the courses offered by the Community Vocational Centres are in 0-12 academic upgrading with emphasis on basic job readiness training. Many courses are also offered to meet the need for practical skills in the community; these include secretarial training, welding, fur trapping and house wiring to name a few. Using community advisory committees the Community Vocational Centres are able to key in to specific community needs. (Specific information regarding location and type of courses offered is provided in Appendix 1, Table A2.1).

The Community Vocational Centres also offer vocational counselling services in Cree, English and French. This linguistic, and usually culture sensitive capability provides a much needed service in the remote areas.

RMC

Community Vocational Centres are regarded by many northerners as one of the more successful innovative mechanisms used to bring training to remote communities in the north.

Enrolments - Community Vocational Centres

	1978-79	1979-80	1980-81	1981-82
Long Courses	N/A	259	400	N/A
Short Courses	N/A	60	270	N/A
FTE's	245	128	N/A	N/A

Source: AAE & M Annual Reports 1978-79, 1979-80 for FTE's
CVC Registrar for registrations in long and short courses

2.2.4 Universities

Three of Alberta's universities offer courses in the study area: University of Alberta, Athabasca University and the University of Calgary.

* University of Alberta

The University of Alberta offers a variety of courses in the study area. In past years most courses were aimed at teachers wishing to upgrade their qualifications but this group have now for the most part been upgraded. At present several courses for nurses wanting to obtain their Bachelor of Science in Nursing degree are being offered.

A Masters program in educational administration is being offered for five years, in Grande Prairie.

Grande Prairie Regional College, Keyano College and Lakeland College have arrangements for University transfer programs with the University of Alberta. This enables many students to take first and second year university courses in or near their home communities.

RMC

The University of Alberta has been involved with Project Morningstar, a program to prepare native teachers for northern schools, for a number of years at Blue Quills near the Saddle Lake Reserve close to St. Paul.

The Department of Extension has offered extension programs in the north in the past and will continue to do so as needs are identified or as viable requests are received. The University is a member of the North Peace Adult Education Consortium and the Yellowhead Consortium.

Evening Credit Programs (Off Campus) Enrolments - University of Alberta for northern Alberta

	1978-79	1979-80	1980-81	1981-82
Full-time	379	340	327	413

Source: University of Alberta, Evening Credit Program Registrar

* Athabasca University

Athabasca University has a mandate to deliver university level programming through home study. Nearly 25 percent of the University's enrolment is made up of students from the study area. Students can earn Bachelor degrees in Arts, General Studies and Administration. The University is involved in the Blue Quills Education Council and the North Peace Adult Education Consortium and has a centre in Fort McMurray.

The University plans to move from Edmonton to Athabasca in 1983 where it will establish its permanent headquarters. Having a strong physical presence in northern Alberta will probably help the University to meet the needs of residents throughout the north because it will be perceived as a northern University.

Athabasca has an open admissions policy which allows any interested adult over eighteen to take courses. The open admission policy coupled with the home study mode of delivery has made university level programs available to adult students in the study area. As can be seen from the registration data, Athabasca's enrolments have been steadily increasing.

RMC

Athabasca University also has a mandate to perform a credit coordination function. The University will determine what level of university credit an individual has obtained in courses taken from other institutions. In theory, a student could receive an Athabasca degree without ever attending Athabasca University if enough courses have been taken at other institutions and if they meet Athabasca's degree requirements. This feature is very beneficial to individuals who are living in the north and who have taken some courses from a post-secondary institution but who were not able to finish their programs. They can receive advanced credit for courses taken and finish their program through Athabasca. Recognition of courses by Athabasca also usually enables the learner to receive advanced standing with Alberta's other universities as well.

As can be seen from the enrolment data Athabasca is increasing its northern impact significantly each year.

Number of New Students Registering at Athabasca University, from Census Divisions 12, 13, and 15:

	1978-79	1979-80	1980-81	1981-82
Total (CD 12,13 & 15)	481	511	700	N/A

Source: Athabasca University

Note: Total registrations from northern Alberta not available

* The University of Calgary

The University of Calgary has offered educational services to many communities in the north. The University of Calgary has a provincial mandate for social welfare education and has offered social work courses at Blue Quills and in St. Paul, Grande Prairie, Peace River and Fort McMurray.

The University has been innovative in developing teleconferencing as a mode of delivery which shows much promise as a method of delivering courses to remote communities. Presently teleconferencing centres exist in St. Paul, Grande Prairie and Peace River. The University of Calgary has in the past offered courses in several more northern communities including Fort Chipewyan, Fort McMurray and Fairview.

The University of Calgary will consider any reasonable request for courses from communities in the study area.

2.2.5 Other Institutions and Agencies

There are several institutions and agencies that provide educational services to the study area but are not as apparent in their northern role as those described to this point.

* Consortia

A fairly recent and promising innovation has been the creation of consortia to coordinate various educational institutions and agencies in the delivery of adult training programs to meet the needs of various areas throughout Alberta. There are presently two consortia operating in northern Alberta. One is the North Peace Adult Education Consortium, consisting of Grande Prairie Regional College, Fairview College, Alberta Vocational Centre Grouard, Athabasca University, University of Alberta and ACCESS. The Consortium is based in Peace River and provides outreach programs to the community centres of Manning, Grimshaw, and Berwyn. The second is the Yellowhead Regional Consortium which is based in Hinton and serves a portion of the study area; newly initiated in 1981, it is presently assessing needs of the region for education provision.

Consortia arrangements appear to be working well and have increased the educational opportunities available to Northern residents.

RMC

The Department of Advanced Education and Manpower assumed a coordination role to initiate Consortia as well as responsibility for some funding to expand services.

* Northern Alberta Institute of Technology (NAIT)

NAIT is prepared to provide some types of training programs on an "ad hoc" basis to meet the needs of specific firms or agencies. In addition some of the post-secondary institutions located in the study area will on occasion broker courses from NAIT if the need arises.

NAIT is also a member of the Yellowhead Regional Consortium, part of which is in the study area.

* Southern Alberta Institute of Technology(SAIT)

SAIT's policies are similar to NAIT's. They have in the past and are still prepared to deliver courses on an "ad hoc" basis.

SAIT has for several years worked with Alberta Vocational Centre Lac La Biche in delivering portions of its power engineering program in Lac La Biche.

* Grant MacEwan Community College

While physically located in Edmonton, Grant MacEwan carries on an extensive outreach program, much of it in the study area.

The College will offer courses in response to specific requests from communities. They have recently, for example, conducted business courses in Cold Lake and Peace River. An extended care nursing program is available through correspondence. Two library courses are available through satellite to such places as Grouard, Peace River, Fort McMurray, Fairview, High Level and Lac La Biche.

Grant MacEwan conducts a teacher aide program in cooperation with Alberta Vocational Centre Grouard and has conducted courses for the Lesser Slave Lake Indian Regional Council and the Northlands School Division. The College is also a member of the Yellowhead Regional Consortium, part of which is in the study area.

* Blue Quills School

Blue Quills, located near St. Paul and the Saddle Lake Reserve has a mandate to serve the Indian Bands of Northeast Alberta as well as anyone else who wants to attend. They offer programs and courses in nursing in cooperation with Grant MacEwan College; social work in cooperation with University of Calgary; Bachelor of Arts and Public Administration with Athabasca University; Bachelor of Education Morningstar program with the University of Alberta; power engineering with SAIT and Alberta Vocational Centre Lac La Biche; and clerk-typist with Alberta Vocational Centre Lac La Biche.

Blue Quills is funded primarily by the Federal Government. As well, the scool receives some grants from private industry.

* The Alberta Educational Communications Corporation (ACCESS)

The Alberta Educational Communications Corporation, commonly known as ACCESS is governed by the Alberta Educational Communications Authority (AECA) which until recently comprised the Ministers of Advanced Education and Manpower, and Education, and their respective deputies or appointed representatives. Recently the Associate Minister of Telephones was also appointed to the Authority, which provides programming guidelines, sets priorities and approves individual program proposals for the Corporation (ACCESS).

RMC

ACCESS plays a significant role in providing educational broadcasting through radio station CKUA. In addition their services are available to institutions to assist in the production and delivery of educational programs. While the educational efforts of ACCESS have been primarily directed towards K-12 education for historic reasons, it sees itself as a potential key resource in the delivery of educational services to adults.

The production capability of ACCESS has been utilized by both Adult and Community Vocational Centres (e.g. Lac La Biche, and Grouard) and Colleges (e.g. Keyano, Lakeland). Direct costs for such work have been picked up by the Corporation, In addition, ACCESS has acted as a brokerage agency on occasion, to help produce materials for industry. For example, a safety film for Gulf Oil was brokered by ACCESS, with the Northern Alberta Institute of Technology producing the film, utilizing assistance from ACCESS.

Athabasca University uses CKUA to broadcast material for some of its home study courses. This University has participated in experimental programs offering two way tutorial distance education to humanities students in Northern Alberta through a SCMO-telephone system. * A SCMO signal piggybacks alongside regular FM broadcast transmission, permitting course delivery by radio, and may be rounded out by telephone feedback for two way communication. This same communication service is also provided by ACCESS to Alberta Agriculture's northern offices.

An important recent ACCESS experimental project used the ANIK 'B' satellite to provide six hours a week full credit programming in cooperation with Athabasca University and Grant McEwan Community College. The technology used was based on slow scan television, using an earth station in Edmonton to beam signals to the satellite which then beamed down a signal to receiving dishes at various northern communities. Such receiving dishes were located in Grande Prairie Regional College, Alberta Vocational Centre Grouard, High Level Public School, Peace River Adult Learning Centre and at the Alberta Broadcasting Corporation in Fort McMurray. Other centres outside the study area were also included.

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* SCMO - Subsidiary Communications Mutliplex Operation

While the project terminated in the Spring of 1981, ACCESS has been hopeful that further such work could be carried out, e.g. the possibility of further experimental work with ANIK 'C' in late 1982. ACCESS is strongly interested in contributing to the development of a "Highway in the Sky" concept which would use satellite telecommunications means to open up opportunities for the delivery and distribution of educational course materials and programs, to residents of northern Alberta.

ACCESS is a member of the North Peace Adult Education Consortium.

* Alberta Correspondence School

It is possible for residents in the study area to obtain high school credits by studying at home with courses from the Alberta Correspondence School. In 1983 its main office will move to Barrhead. The School also has ties with various institutions in the study area, e.g., Keyano College students may take some pre-university courses by correspondence.

* Rural Education and Development Association (REDA)

The Rural Education and Development Association is basically a private continuing education agency devoted to serving rural Albertans. There are four sponsoring organizations for Rural Education and Development Association: Unifarm, Federated Cooperatives Limited, The Cooperators and Credit Union Central (Alberta).

The main thrust of their programming is to develop leadership and organizational expertise in and for farm, cooperative and rural organizations.

Rural Education and Development Association provides home study programs, seminars and workshops throughout the province.

RMC

* Alberta Agriculture

The Alberta Department of Agriculture offers courses for rural residents in Alberta. The courses are usually of a practical nature designed to help the farmer increase his skills as a farmer. There are also courses for farm housewives through the District Home Economist offices. In addition, the Department administers the Green Certificate program, designed to train potential farmers through on-the-job training experience, and courses taken from Colleges offering agricultural programs. Most course offerings are very short, usually one or two days, and are usually well attended. Appendix 1 Table A2.2 gives a summary of course offerings and attendances. During 1980-81, over 800 courses were attended by approximately 17,000 people.

* Alberta Petroleum Industry Training Centre (APITC)

Many northern residents wishing to work in the oilfields will take short courses from the APITC located in Edmonton. The Centre offers a pre-employment program for people entering the oilfield drilling industry and an upgrading program for those already employed in the industry. The Centre, located in Edmonton, is operated cooperatively by the Alberta Advanced Education and Manpower and the Canadian Association of Oilwell Drilling Contractors.

* Forest Technology School

The Forest Technology School at Hinton serves two primary functions: the provision of a one-year practicum for NAIT students, specializing in forest technology and provision of pre-service and continuing education for personnel in the forestry service.

* Community Schools

The community school concept integrates the human, learning, and facility resources of K-12 institutions, with the educational and recreational resources, and interest of members in local communities.

There are currently eight designated, and eleven declared community schools in the study area according to the Department of Education.

A designated school is one that is currently receiving funding to operate as a community school. A declared community school is one which is in the process of becoming designated but not presently receiving funding.

The designated schools include:

- Ashmont School - Ashmont
- Father Beauregard School - Fort McMurray
- Good Shepherd School - Fort McMurray
- Hillside School - Grande Prairie
- Lafond School - Lafond
- Peter Pond School - Fort McMurray
- St. Patrick's School - Grande Prairie
- St. Paul Regional High School - St. Paul

The declared schools include:

- Assumption Day School - Chateh
- Edwin Parr High School - Athabasca
- Father Patrick Mercredi School - Ft. McMurray
- Grande Cache High School - Grande Cache
- Grassland School - Grassland
- Mallaig School - Mallaig
- Menno-Simon School - Cleardale
- Paddle Prairie School - Paddle Prairie
- Father Rauthier School - Fahler
- St. Andrews School - High Prairie
- St. Paul Elementry School - St. Paul

Community schools can often become a focal point within their community for identifying needs and educational resources. These schools represent a potential service that can be exploited by adults, particularly those from the more remote communities, who at present do not have any adult education services available.

2.2.6 Private Schools

There are several private trade schools operating in the study area. Most are located in Fort McMurray with one in Grande Prairie.

To operate in Alberta the schools must register with the Alberta Government and are subject to regulations under the Trade School Regulation Act which is administered by Alberta Advanced Education and Manpower through the Field Services Division.

Schools operating in Northern Alberta include:

- Grande Prairie Beauty College - Grande Prairie
- La Coupe School of Beauty Culture - Fort McMurray
- Adcam Educational Systems - Fort McMurray
- H & R Block (Canada) Ltd. - Fort McMurray
- Life Skills Training Centre - Fort McMurray

2.2.7 Industry

One of the largest trainers of adults in the study area is industry through various on-the-job training programs, some formal some informal. The apprenticeship training program is an obvious formalized on-the-job training program and many employers in northern Alberta are involved with it. Some of the major employers have extensive need for apprenticeship trainees. Syncrude, for example, has a very high demand for the major trades and has a very innovative approach to providing apprenticeship training on-site for its employees.

Both Suncor and Syncrude work very closely with Keyano College to discuss and analyze training needs. Most major employers in the north have on-going liaison with the educational institutions in their area.

The Syncrude model provides apprenticeship training in welding, millwrights and partsman with future plans for power engineering. Training is offered on-site. It is provided in blocks, four weeks of work and one week of training. Some of the training is generic to two or more trades. Performance is criterion based. Supervisors carry competency charts and sign off skill areas when the apprentice has demonstrated that he has learned and can perform the skill in question.

Instructor costs are paid by Keyano College with Syncrude providing all other instructional costs such as equipment, classroom and shop space.

RMC

Employees who must go out for training are subsidized by Syncrude. Syncrude makes up the difference between what the employee gets in training allowances and what his wages are; they are also paid a grant for living expenses while out.

Apprenticeship training appears to be the major type of formal training industry is engaged in at the moment, However, several apsects of training are carried on by industry on an informal basis. Experience gained on any job is training to some extent and needs to be recognized as such.

Many employers provide their employees with training for specific jobs within a particular industry. After meeting certain basic education requirements such as grade 10 or 12, once the employee is hired, most of the technical training provided is on-the-job. Utility companies such as Alberta Government Telephones use this system as well as the apprenticeship system.

2.2.8 Alberta Advanced Education and Manpower

Besides being the major funding source for most adult training programs offered by post-secondary institutions, Alberta Advanced Education and Manpower offers a variety of educational services to the citizens of the study area.

* Further Education Councils

Further Education Councils exist throughout most parts of northern Alberta. According to the Further Education Council manual of Administration and Organization Alternatives, the purpose of the Councils is "to provide for inter-agency cooperation in the coordination and development of learning programs using the services of: Individuals, Agencies, Institutes and Government Departments."

A very specific goal of the Councils is "to offer coordinated comprehensive and meaningful courses to meet the needs of the people living within the boundaries of the Local Further Educational Council."

Further Education Councils have been successful in providing a variety of non-credit educational opportunities for adults in communities served. The Councils are extremely useful in identifying needs and providing coordination for the various agencies offering services to adults. Each Council receives funding from Advanced Education and Manpower. Appendix 1, Table A2.3 provides a summary of course offerings and registrants for Further Education Councils in the study area. During 1980, approximately 1,280 courses were offered, with total registrations of 14,580.

* Career Centres

There are Career Centres located in Grande Prairie, Fort McMurray, Peace River, Bonnyville and St. Paul. The Centres are to assist adults in career planning. They provide a variety of services including counselling and test- ing for adults seeking assistance in career planning. Due to limited staff they find it extemely difficult to adequately provide a full range of services.

* Job Identification Branch

The Job Identification Branch maintains a close contact with industry and business to ensure that their specific manpower needs are being met. Their main concern is offering assistance to small businesses.

The assistance offered includes the identification of present and future manpower requirements and the assessment of training and recruitment requirements. They conduct manpower surveys on specific industrial sectors to determine future manpower shortages and problems.

They have two offices in the study area located in Grande Prairie and St. Paul.

RMC

* Employment Counselling and Relocation Services.

This service is provided to assist in relocating geographically and socially isolated northern families to where jobs are available. The program is designed to offer in-depth counselling regarding employment, home maintenance and social adjustment. The Alberta Housing Corporation is also involved with the program in assisting families to locate suitable housing. Joint funding has been provided by the federal Department of Regional Economic Expansion.

* The Opportunity Corps

This program was originally administered by Alberta Social Services and Community Health but has recently been transferred to Alberta Advanced Education and Manpower. The Corps is now linked with Employment Counselling and Relocation Services through Advanced Education and Manpower. It is jointly funded by the Department of Regional Economic Expansion.

The program is designed to provide work experience for the unemployed in communities that have few job opportunities. It has trained in excess of 2000 adults with approximately 46 percent going on to employment, according to Corps officials interviewed.

The Corps has difficulty in paying rates that are competitive with certain short term unskilled jobs. As a consequence many students do not remain for the full duration of a project.

* The Apprenticeship Branch

Apprenticeship training is offered in a variety of programs at the four public colleges located in the study area. Apprentices in the basic trades such as carpentry, welding, automotive mechanics and electricians are able to take some, if not all, of their training at one of the Colleges. This is due in large part to the decentralization policy of the Apprenticeship Branch.

In addition, the Apprenticeship Branch has located Divisional Offices in Fort McMurray and Grande Prairie to facilitate the registration procedures and to be closer to the employers and institutions offering training.

The Apprenticeship Branch has regional and provincial advisory committees to provide curriculum relevance. They also have a special unit to provide counselling and support to disadvantaged students.

Apprenticeship programs are industry driven; if there are no jobs there is no need for training.

2.2.9 Sources of Student Finance

Adults wishing to take further training have several sources of financial assistance available to them if they are unable to pay their own costs.

* Student Loans

Loans are available up to a maximum of $4,600 to Alberta residents who qualify. These loans fall under the Canada Student Loans Act and the Students Finance Act of Alberta as do Alberta Heritage Scholarships.

* Province of Alberta Scholarships

Awards of $150 are made to matriculating and undergraduate university students who qualify.

* Alberta Heritage Scholarship Fund

The Alberta Heritage Scholarship Fund provides a variety of scholarships for post-secondary study at colleges, technical schools or universities. Scholarships are available for high school, undergraduate and graduate students to pursue academic studies, for adults for further career development, for student athletes, community recreation leaders, and others wishing to further their education. Awards of excellence are also funded through the Fund.

* Northern Alberta Development Council Student Bursaries

  Bursaries up to $3,500 for single students and $5,000 for married students are provided to persons resident in northern Alberta and interested in training for a career in northern Alberta. This program is administered by the Northern Alberta Development Council.

* Vocational Teacher Development Grants

  Grants of up to $7,000 per year are available to qualified applicants seeking training as certified vocational teachers.

* Band and Choral Teacher Development Grants

  $6,000 per year is available to students enroled in a program leading to certification as a band or choral teacher and planning to teach in Alberta.

* Supplemental Assistance Grants

  Students who, because of unique circumstances, have no prospects of completing their training may qualify for grants of up to $6,000 per year.

* Federal-Provincial Bilingual Education Program

  This program is set up for students and teachers of the French language. Various bursary and travel assistance is available.

* The Alberta Vocational Training Program

  This program is administered by the Department of Advanced Education and Manpower. It is designed to help those needing academic upgrading to qualify for apprenticeship or vocational training and to assist people geographically removed from ordinary training and employment opportunities. Assistance is for tuition, books and related costs. Some persons may also qualify for a training allowance.

RMC

* Employment and Immigration Canada

The Federal Government has a variety of assistance programs available to those adults who meet their requirements. The Canada Employment and Immigration Commission (CEIC) tries to meet its objectives through the Canada Manpower Training Program (CMTP). There are two components to CMTP: industry based training and institution-based training.

Industry based training is basically on-the-job training. A trainee must be working for an employer while training. Employers are reimbursed for their efforts. The instructional contents of such programs are reviewed and approved by the Provincial Government.

Institutionally based training occurs at post-secondary institutions where CEIC has purchased training seats in various programs. CEIC will also provide training allowances to students while they are receiving training. Some students are also eligible to receive unemployment insurance while attending a vocational training program.

* Department of Indian and Northern Affairs

Since Treaty Indians are a responsibility of the Department of Indian and Northern Affairs, there is a program of support for Treaty Indians wishing to take vocational or university training.

In addition to the above mentioned programs, the public colleges have a variety of scholarships and bursaries available for their students.

2.3 PUBLIC INPUT

Public input into program development, execution and evaluation in the area of adult education and training is particularly directed to the institutions and programs funded and/or administered by Alberta Advanced Education and Manpower. Industry and Unions do not generally seek public input regarding training issues, but are sensitive to general public pressure as well as their own self interests which recognize well trained workers as significant assets.

RMC

In addition to having a special Ministerial advisory committee for their interests, private trade schools must be registered with Alberta Advanced Education and Manpower and consequently benefit from the general guidelines, standards and public input which goes into their development. In all these cases, public input is typically based on individual initiative and interest. Elected representation from citizens at large, common in the K-12 system and to a certain degree, for example, in the health care system, does not exist.

The summaries of various vehicles for public input which follow apply to the province as a whole, as well as to institutional and program resources in the study area. [4]

* Apprenticeship and Trade Certification Board

  The Board comprises eleven members appointed by the Lieutenant Governor in Council and the Director of the Trade Certification Branch of Alberta Advanced Education and Manpower. In addition, over 550 trade advisory committee members serve on local and provincial advisory committees which include employer and employee representation. These committees advise on matters pertaining to apprenticeship training.

* Board of Governors

  Public Colleges and Universities have boards of governors whose responsibilities include being the legal and accountability focus for their administration and operation. Seven public representatives are appointed to College Boards, and eight to University Boards, by the Lieutenant Governor in Council.

* Senate of the University of Alberta

  The University's Senate includes representation from northern Alberta and on occasion meets in the north. It has undertaken task force studies of issues relevant to northern concerns, such as the Task Force on Native Students.

* Educational Management Committees

The Community Vocational Centres make use of these committees to identify training needs, screen applicants and provide operating advice. At the same time these committees comprising three to six members contribute to the development of local leadership skills.

* Further Education Councils

Discussed in Section 2.2, the councils have private citizens and representatives from local service delivery agencies and groups.

* Manpower Advisory Council

This group has six members of the public and a Chairman. Its purpose is to review Alberta's manpower goals, needs, and manpower development.

* Ministerial Advisory Committees

Appointed by the Minister, public members and representatives of special interest groups sit on the following committees and advise the Minister of Advanced Education and Manpower on:

- College Affairs
- Further Education
- Native Peoples Education
- Student Affairs
- University Affairs
- Vocational Education

* Program Advisory Committees

The various institutions have varying numbers of committees comprising representatives of the general public, industry and special community interests. These committees provide important promotional capability, feedback and technical and other advice to individual programs or institutions as a whole, on the quality, quantity, and competency of graduates, or even institutional development as a whole.

RMC

* Student Finance Board

  This Board, comprising up to seven members appointed by the Minister of Advanced Education and Manpower advises him on issues relevant to the student finance, and appoints public members to two of its committees, the Appeal Committee and the Supplemental Assistance Committee.

* Trade Schools Advisory Board

  The Board has three public members appointed by, and advisors to the Minister of Advanced Education and Manpower on Private Trade and Vocational institutions.

The workings of each of these committees and Boards depends on a range of factors, including individual capbility, interest, and specified mandates. On the whole, public input into adult education and training centred enterprises, represents a significant and valuable resource, as well as general monitoring capability to facilitate accountability and responsiveness to public needs.

2.4 BASELINE PROGRAM DATA

2.4.1 Existing Credit Programs

Adult students wishing to make use of the post-secondary institutions located in the study area have a wide variety of programs available to them. Table A2-1 in Appendix 1 provides a listing of programs offered by the four public Colleges and two Alberta Vocational Centres located in the study area.

Program gaps appear at the University level. University transfer programs are available but course selection is limited and students must still leave home to complete their degrees in larger centres such as Edmonton. The exception to this would be those students who are taking degree programs from Athabasca University through home study.

RMC

In addition to the regular programs, a number of Apprenticeship programs are available and the Apprenticeship Branch has indicated that more offerings will be available in the future if the mega-projects proceed.

Some very capital intensive technology programs are not available in the study area and are offered only at NAIT and SAIT. On the other hand, each institution in the study area offers some programs that are unique to the Province. Heavy Equipment Operation at Keyano College and Turf Grass Management at Fairview College are two examples.

2.4.2 Expenditures

The primary purpose of this section is to see how those institutions operating in northern Alberta compare with their counterparts throughout the Province with respect to the expenditure of funds.

Table 2.1 is a Statement of Expense Summary for the provincially administered institutions in Alberta. The following is worth noting: excluding NAIT and SAIT, 42 percent of all funds for provincially administered institutions were spent on two Adult Vocational Centres and the Community Vocational Centres located in northern Alberta in 1980.

This is significant since the northern institutions account for only 28 percent of the student registrations for the provincially administered institutions excluding NAIT and SAIT.

This should illustrate fairly clearly the provincial government's recognition of the higher cost involved in northern education. The higher costs can be attributed to a number of factors but primarily seem to be related to greater distances and sparse population of the northern regions. Many institutions still feel, however, that Advanced Education and Manpower does not fully recognize to a significant degree how much higher costs are in the north.

RMC

TABLE 2.1

Statement of Expense Summary

Institution	Expenditure Group				
	Manpower	Supplies/ Services	Purchase of Assets	1979-80	1978-79
Vocational Centres					
Calgary	2,941,797	302,030	68,698	3,312,525	2,935,242
Edmonton	3,461,680	439,618	86,627	3,987,925	3,445,156
Grouard	2,026,548	507,646	68,870	2,603,064	2,450,975
Lac La Biche	1,543,434	426,816	38,530	2,008,780	1,810,053
Sub Total	9,973,459	1,676,110	262,725	11,912,294	10,641,426
CVC's	824,420	191,358	27,414	1,043,192	980,602
APITC	224,959	103,821	26,881	355,661	318,799
Sub Total	1,049,379	295,179	54,295	1,398,853	1,299,401
Total Vocational Centres	11,022,838	1,971,289	317,020	13,311,147	11,940,827

Source: Annual Report 1979-80, Advanced Education and Manpower

Table 2.2 is a Comparative Statement of Operating Grants for the public colleges in Alberta. This information is useful for comparative purposes. Four of the ten public colleges in Alberta are located in the study area. Lakeland has offices in St. Paul, Bonnyville and Grand Centre but has its administrative head office and main campus outside of the study area.

Again there appears to be a recognition of higher costs for northern institutions by the provincial government. In 1980, 31 percent of all operating money spent on public colleges was spent on the northern institutions. The northern colleges in terms of enrolment accounted for only 15 percent of the provincial total for public colleges.

RMC

TABLE 2.2

Public Colleges

Operating Grants — Summary
(College Fiscal Year — July to June)

Institution/Year	Type of Grant			
	Regular $	Special $	Program $	Total $
1979-80				
Fairview	2,925,000	75,000	26,203	3,026,203
Grande Prairie	2,818,200	115,000	631,800	3,565,000
Grant MacEwan	7,236,500	175,000	493,800	7,905,300
Keyano	5,489,500	75,000	72,900	5,637,400
Lakeland	3,829,300	75,000	138,400	4,042,700
Lethbridge	4,424,300	115,000	463,100	5,002,400
Medicine Hat	2,503,600	115,000	367,300	2,985,900
Mount Royal	10,502,800	175,000	170,930	10,848,730
Olds	4,901,500	115,000	—	5,016,500
Red Deer	4,702,100	115,000	471,820	5,288,920
Total	49,332,800	1,150,000	2,836,253	53,319,053
1978-79				
Fairview	2,699,236	—	4,064	2,703,300
Grande Prairie	2,400,000	300,000	103,600	2,803,600
Grant MacEwan	6,467,400	15,000	390,100	6,872,500
Keyano	5,209,330	—	116,370	5,325,700
Lakeland	3,580,600	—	—	3,580,600
Lethbridge	4,004,000	350,000	78,800	4,432,800
Medicine Hat	2,225,600	250,000	40,100	2,515,700
Mount Royal	9,505,300	10,000	90,800	9,606,100
Olds	4,651,600	—	35,000	4,686,600
Red Deer	4,130,800	175,000	212,500	4,518,300
Total	44,873,866	1,100,000	1,071,334	47,045,200

Source: Annual Report 1979-80, Advanced Education and Manpower

RMC

Table 2.3 shows costs per full time equivalent (FTE) students. One FTE is defined as 160 student days. Institutions, therefore, calculate the number of student days for the institution and divide by 160 to determine fulltime equivalents. The calculations are for the 1979-80 academic year. Some institutions from outside the study area have been included for comparative purposes.

As can be seen, costs are higher for northern institutions. The costs were calculated by dividing total FTE's for each institution into their 1979-80 operating budget. It must be pointed out, however, that higher costs per FTE can be attributed to several factors. For example, Keyano College offers programs in Heavy Equipment Operation which is a very expensive capital intensive program with high operating costs. Fairview College operates a farm and residence which increases operating costs significantly.

Other obvious factors contributing to higher costs include the high cost of staff travel in remote areas and higher heating costs. Lower enrolments increase per unit costs since a college must have an infrastructure that is basic for a college whether there are 300 students or 2000.

It has also been observed that capital construction costs for new instructional facilities are higher in many northern communities, due to such factors as distance and isolation.

TABLE 2.3

COSTS PER FTE

Institution	1979-80 Operating Budget	Total Credit FTE's (1979-80)	Cost Per FTE
Keyano College	6,184,000	469	13,186
Lakeland College	5,678,000	476	11,929
Fairview College	3,687,000	430	8,574
Grande Prairie Coll.	4,589,000	624	7,354
AVC Lac La Biche	2,008,780	236	8,512
AVC Grouard	2,603,064	425	6,125
Grant MacEwan	10,127,000	2,407	4,207
Lethbridge CC	6,069,000	1,858	3,266
Medicine Hat CC	3,797,000	865	4,390
Red Deer College	6,469,000	1,631	3,966

Source: RMC consolidation from Advanced Education and Manpower Annual Report 1979-80.

2.4.3 Participation Rates and Comparisons

The study area has traditionally had lower participation rates in post-secondary education. A 1974 study on educational levels of adults in the study area done by the Northern Development Group and quoted by Dumont in his 1976 Task Force Report for Project North made the following observations:

* 0.8 percent of the population was attending university full time as compared with 2.2 percent for the remainder of Alberta.

* 0.07 percent of the population attended vocational training school and this was 0.1 percent below the Alberta average.

* 9.3 percent of the population 5 years and over not attending school full time had achieved less than grade 5 as compared with the Alberta average of 6.1 percent.

* 18.2 percent of the population not attending school full time were in the grades 5-8 range as compared with the Alberta average of 14.3 percent.

* 28.4 percent of the population not attending school fulltime were in the grades 9-12 range as compared with the Alberta average of 35.7 percent.

* 1.5 percent of the population not attending school had completed some university training as compared with an average of 3.4 percent for the remainder of Alberta.

* 2.3 percent of the population not attending school had completed their university training as compared with 3.6 percent for the remainder of Alberta. [1]

The overall conclusion reached at that time was that post-secondary educational levels in Northern Alberta were lower than the rest of Alberta.

Information collected in the 1976 Census (see Appendix 1, Tables A2.4 and A2.5) suggests that the overall situation is similar to what it was in 1971, i.e. educational attainment and participation in post-secondary education are lower for northern Alberta than for the Province as a whole. (Note: a direct, detailed comparison of the two sets of data has not been provided for two reasons, first that the data categories are not comparable, and second that the 1976 school attendance data have been found to contain a high degree of error. Therefore the tables found in the Appendix should be treated with caution).

RMC

Table 2.4 provides a summary of full-time attendance at post-secondary institutions, 1976, comparing Census Divisions 12, 13 and 15 with the Province as a whole. Perusal of the Table indicates that participation of northerners in post-secondary education was substantially lower than for the Province as a whole. Whereas 46.3 persons per thousand population over the age of 15 were involved full-time in post-secondary education for the Province as a whole, only 23.6 persons in northern Alberta were participating full-time. The lower participation rate was consistent for all three Census Divisions, but was especially low for C.D. 13 (Athabasca area).

Data from the 1981 Census regarding educational attainment and participation are not yet available. However, statistics provided earlier regarding enrolments at various institutions in northern Alberta reinforce the notion that more northerners are taking advantage of post-secondary opportunities as they become available. All institutions have shown slight or significant increases in enrolments, especially in vocational training. Much of this increase can be attributed to increased accessibility to programs. In addition, it has been speculated (personal communication with institutional representatives) that the current economic downturn is a factor in increasing enrolment, as students choose to return to school because jobs are not plentiful.

Table 2.4

POPULATION 15 YEARS AND OVER ATTENDING POST-SECONDARY EDUCATION FULL-TIME, BY TYPE OF INSTITUTION AND CENSUS DIVISION, 1976

	Post-Secondary Non-University		University		Post-Secondary Total	
	N	Rate[1]	N	Rate	N	Rate
C.D. 12	550	13.4	445	10.8	995	24.2
C.D. 13	270	7.9	275	8.0	545	15.9
C.D. 15	1,110	15.8	800	11.3	1,910	27.2
C.D.12,13,15	1,930	13.2	1,520	10.4	3,435	23.6
Alberta	24,320	18.2	37,570	28.1	61,890	46.3

1 Participation rate is calculated as number per thousand population aged 15 years and over.

Source: RMC calculation from 1976 Census of Canada, Vol.2. Population: Demographic Characteristics: School Attendance and Level of Schooling

2.5 PROBLEMS IDENTIFIED IN THE LITERATURE

Problems facing northerners with respect to employment and training in northern Alberta have been identified in a number of studies published over the past several years. Many of these studies identified programming gaps, such as the need for increased vocational and trades training (which will be addressed in a subsequent chapter on training needs). In addition, these studies identified barriers or weaknesses in the system that prevented prospective students from taking advantage of the opportunities available to them. Chief among these problems identified in the literature are the following:

* Geographic Access to Adult Education and Training.

A number of studies (Co-West, 1981; Deines et al., 1979; Littlejohn and Powell, 1981; Dumont, 1976; MTB Consultants, 1980; Owen, 1982; Nichols, 1981b)* have concluded that a major problem facing northerners, especially those residing in isolated communities, is the lack of access to training programs. Dumont (1976) in an early review of the northern educational system suggested that a major reason for the relatively low participation rate by northern adults in post-secondary education was the factor of inaccessibility to training programs. Deines et al. (1979), in reviewing the literature suggested that "training can be more successful when it is offered in the individual's home community, where the native person is surrounded by family and friends and there is no struggle to adapt to a new environment at the same time" (p.19).

Similarly, MTB Consultants (1980) concluded that "A training institution located far from one's home community presents severe problems if not insurmountable barriers to many potential and participating vocational students..... many students are either unable or reluctant to enrol or find that they cannot 'cope' with urban conditions and the course and so drop-out or fail" (p.51). Co-West, in their socio-economic overview of northern Alberta (1981) similarly heard many respondents citing lack of local training facilities as a problem and/or provision of local training facilities as an objective desirable in the future.

* Full bibliographic references can be found in Appendix 2.

* Financial Access to Adult Education and Training.

Another frequently mentioned problem facing students wanting to participate in adult training had to do with finances. A number of studies (Canadian Institute for Research in the Behavioural and Social Sciences, 1979; Tang, 1975, Carcajou, 1979: Assheton-Smith, 1979; MTB Consultants, 1980; Owen, 1982; and Littlejohn et al., 1981) found that training allowances were insufficient, especially for those with families, who had to face additional costs of maintaining two residences while taking training away from home or of relocating the family in order to stay together during training. This problem was especially acute for trainees wanting to attend programs at institutions with no student housing, e.g. NAIT. A related issue had to do with the "red tape" associated with access to funding (e.g. Owen, 1982), particularly for native people.

* Lack of Information and Counselling

Lack of information regarding program and funding opportunities was also found to be a problem. (Co-West, 1981; Erasmus, 1981: Owen, 1982; Littlejohn et al., 1981; Management Advisory Institute, 1980; and MTB Consultants, 1980). In essence, these researchers pointed out that prospective students "lacked awareness" of what was available to them in terms of training programs and how to gain access to them. A related problem had to do with the need for "coping" skills, especially for people from isolated communities, to deal with their problems in adjusting to the life style and urban environment in which most institutions exist. Thus, there was a plea for counselling for students, not only to assist them to adjust to the training environment, but also to adapt to the next step of employment. Lack of counselling in terms of career planning and basic living/coping skills was identified as a problem facing many students.

* Manpower and Training Needs Assessment

Related to the issue of improved career counselling is the matter of improved needs assessment, i.e. to identify better what job opportunities will be available in the immediate and long term and to provide training options more directly relevant to employment opportunities. The Canadian Institute for Research (1979) follow-up study of graduates of Alberta Vocational Centres and Community Vocational Centre programs found, for example, that a reason frequently cited for unemployment following graduation was the lack of jobs in their area; this was especially so for graduates of educational and social services program clusters. For graduates of AVC Lac La Biche, AVC Grouard, and CVC Slave Lake, a most frequently given reason for unemployment was lack of jobs in the area. In recognition of this lack of fit between training and employment, a number of studies (Dumont, 1976; Task Force on Vocational Education in Improvement District #23, 1979; Deines et al., 1979; Management Advisory Institute, 1980;) have recommended improved communication and coordination between industry and government to provide training more in tune with employment needs in the area.

* Native Education

Numerous authors expressed special concern about the training and employment problems facing native people in northern Alberta. Hubert (1977), for example provides evidence that Treaty Indians in northern Alberta "participate in institutionally based post-secondary education programs at significantly lower rates than the provincial norms." Deines et al., (1979) in their study of native employment patterns in the Athabasca oil sands region found that "natives have a significantly lower successful completion rate in training programs than do non-natives" (50 percent completion for natives versus 80 percent completion for non-natives). A number of authors (Cornerstone, 1980a; Deines et al., 1979; Littlejohn et al., 1981; Assheton-Smith, 1979) have recognized this problem and called for the development of adult education and training programs specially designed to recognize the unique circumstances facing native people and to facilitate their participation in training and employment. One recommendation, for example, from the "Alberta North in the 80's Conference" sponsored by the Northern Alberta Development Council was to improve native training and job entry.

* The Basic Education System

Many studies (for example, Co-West, 1981; Littlejohn et al., 1981; MTB Consultants, 1978; Owen, 1982; Nichols, 1981b) have pointed out major problems and concerns about the basic (K-12) system throughout northern Alberta. Although beyond the terms of reference for this study, recognition of problems in the basic system is required, if only to provide a context within which to assess the adult system. One major criticism, for example, of the basic system is its lack of provision of vocationally relevant education for adolescents, many of whom are presently candidates for the adult system. If the basic system were to be dramatically improved in providing vocational training in the high schools, there would likely be implications for the adult system, such as the potential lessening of demand for pre-employment training and academic upgrading.

2.6 STRENGTHS: STUDY FINDINGS

It is difficult to isolate the adult education and training system of the study area from the rest of the province primarily because its major constituent is the provincial post-secondary system. Theoretically, the whole provincial post-secondary system of adult training is at the disposal of anyone who wants to make use of it. Accordingly, the strengths of the delivery system for adult education and training in all of Alberta are also the strengths of the existing post-secondary system and its delivery agencies in the study area. The following comments arise from field interviews and focus primarily on what is available in the study area.

Generally, there is an adequate availability of programs, facilities and funding in the Area. Section 2.4.2 demonstrated that the provincial government spends more on a per capita basis in the north than in the remainder of the province. There are more post-secondary institutions in the study area, again on a per capita basis, than in the remainder of the province. The decentralization of such programs as apprenticeship training to the colleges has had a very positive effect. The centres of Grande Prairie and Fort McMurray are well served as far as availability of educational opportunities is concerned. As shown earlier in Figure 4, for example, both communities have a college and several services provided by Advanced Education and Manpower.

While each post-secondary institution would like more money to offer more services, field interview evidence suggests there is agreement that what presently exists is well financed.

The existence of Further Education Councils has enabled many rural residents and residents of small communities to take some general interest courses which in turn have increased the students' awareness of further educational opportunities.

Those communities that are fortunate enough to have a college or an Alberta Vocational Centre have been educationally enriched and many adults who otherwise would have been unable to receive training are able to do so because the service was available close to their home.

The post-secondary institutions located in the north are beginning to think in terms of cooperation rather than competition. The agreement between Fairview College and Grande Prairie Regional College regarding apprenticeship training, while having opponents as well as proponents in the two Colleges, is a good example of cooperation. The agreement between Lakeland College and Alberta Vocational Centre Lac La Biche regarding training at the St. Paul Correctional Centre is another such example. Although full cooperation between the latter two institutions has not been achieved, any progress toward that goal will be a strength.

The Community Vocational Centre program is working well and is highly thought of by those adults who have made use of their services.

Programs offered by the various institutions in the study area are in most cases successful in preparing students to enter the workforce. Employers interviewed almost unanimously preferred to hire graduates from northern institutions. It was the employers' feeling that these graduates would, in all likelihood, remain in the north.

The development of consortia such as the North Peace Adult Education Consortia and other developments such as Mackenzie North are perceived by the communities served as very worthwhile. Many view such developments as a first step to getting more permanent services in their communities.

The adult educational institutions and agencies in northern Alberta are working closely with the major industries in the north to plan training programs that meet the needs of students and industry.

RMC

In addition to making use of the input of public members on program advisory committees, management committees and Boards, institutions try to determine community needs in a variety of ways to ensure that they are keeping in touch with the people they serve. The range of formal vehicles for maintaining input into the system is clearly one of its significant strengths.

As can be seen from the list of program offerings available in the north there are many career training opportunities available to them as well as those available in the rest of the province.

2.7 WEAKNESSES: STUDY FINDINGS

The field work generally confirmed weaknesses identified in the literature review. While less emphasis seemed to exist on distance issues and the question of geographic access than suggested by the literature, participants commented on the need to obtain and provide off campus programming, thus reflecting a similar concern. Additionally, problems of staff turnover and funding for institutions to enable them to adequately serve their whole regions, were commonly reflected in the study, but not in the literature.

In commenting on the weaknesses identified by the field work, it is necessary to reflect on three realities which have an overwhelming impact on Adult Education and Training in Northern Alberta. The first reality is that the study area is sparsely populated. The second reality is closely linked to the first one - distances between communities are greater. The third reality is that a significant portion of the population is of Native ancestry and therefore culturally different from the majority population. Any system which fails to take these realities into account will limit its potential for successfully delivering programs and services.

RMC

Major areas of weakness identified through field interviews were:

* Native Education

The B.N.A. Act clearly states that education is a provincial responsibility but that Natives are a Federal reponsibility; therefore, jurisdictional disputes often arise and confusion results. This confusion is further exacerbated when the situations of non-status Indians and Metis people are taken into consideration. As a consequence, Native people often are the losers. This, coupled with the remoteness of many Indian Reserves and Metis Settlements, the poor quality of their basic education, and the failure to design programs that recognize the cultural differences of native people have led to a situation where Natives are turned off by the "white man's" system.

In addition to these mentioned factors, Natives have little or no direct control of or input to the post-secondary educational system. There have been a few exceptions such as Blue Quills and the Alexander Reserve Vocational Upgrading and Carpentry Training Programs. However, the problems with both examples are while they are to a large extent controlled by the Indians, the funding for the programs is uncertain each year making long term planning an impossibility. Thus, they may have some control over what <u>might</u> be provided but not whether it <u>will</u> be provided.

The remoteness of many reserves and communities makes it difficult to deliver many types of basic trades training locally. Some programs, such as academic upgrading, can be easily delivered if a suitable facility is available but in many places lack of suitable facilities is a problem. The remoteness of the settlements also contributes to the higher costs associated with delivering courses in some communities.

It is difficult to get enrolment information on natives attending institutions since questions about racial origins are contrary to provincial law and therefore most figures quoted can only be educated guesses at best. A 1980 study[2] prepared for the Northern Alberta Development Council made the following estimates. (see Table 2.5)

Table 2.5

NATIVE STUDENT ENROLMENTS

Institution	Total Enrolment	Native		Treaty	
		No.	%	No.	%
Keyano College (1980 estimate)	1,400	140	10.0	no data	
AVC Grouard (Sept. '78-Aug.'79)	774	605	78.2	235	30.4
AVC Lac La Biche (1978-79)	505	343	68.0	166	32.0
Fairview College (estimate) (date?)	no data	no data		?	1.8
Grande Prairie Regional College (estimate) (date?)	no data	no data		?	0.9

Source: MTB Consultants Ltd., Training Programs Available to Native People, April 1980

Comments made by individuals interviewed during the field work confirmed what previous studies had identified as problems for natives. Comments included:

- Native people are not getting a good deal.
- Native constitutional problems must be solved.
- To be successful, people must have feelings of self-worth; the system must develop this.
- Natives are not making enough use of Further Education Councils;
- Indians should be given enough money to run their own show.

RMC

* Funding

Training programs that operate on the campuses of the post-secondary institutions are generally well funded but those institutions trying to offer courses to the outlying communities complain about a lack of funding. They have a mandate to deliver courses to the surrounding communities. Thus, in addition to certain extra costs directly related to location, this mandate often leads to increased administrative costs which must come out of the institutional base budget. The same situation occurs for those institutions handling the administrative and coordinating functions of the consortia. The administrative costs must come out of their base budget. Field work comments covered a wide range of views on this topic.

- There should be differential funding for the north.
- It is well financed.
- Off campus programs are not well financed.
- We should be careful not to place too much money into machines and neglect people.

* Off-Campus Programming

The institutions interviewed all felt that they were not receiving adequate funding to provide the necessary quantity or quality of programming for off-campus communities. The mandate of each institution is to provide quality programming wherever numbers warrant. Each institution felt that much more could be done if funding was available.

- We have a mandate to program in the region but are not funded to do it
- Every community should have a basic level of service

* The K-12 Basic System

The purpose of this report was to focus on the adult training and educational services available in northern Alberta. Time and resources, therefore, could not be used to examine the K-12 system although many people interviewed felt that the main focus of the study should have been the basic system.

Although mentioned previously, the deficiency of the K-12 system must be singled out as a weakness that impacts on the adult system. There is a strong sense of frustration with the basic educational system in northern Alberta.

The Northland School Division has been singled out the most often, and the recently released Report of the Northland School Division Investigation Committee bears out much of the criticism. It must be pointed out that the urban basic education systems are generally well thought of.

The Curriculum Policies Board of Alberta Education has initiated a study of school progrms for Alberta Native students, including status, non-status and Metis. The final report is expected by June of 1982.

Inadequate preparation in basic academic subjects as well as dropping out prematurely causes a large number of northerners, primarily Native, to be ill-equipped to handle further training or employment. The adult system must provide programs that will compensate for past failure.

Illustrative comments made by field respondents were:

- The real problems are with the K-12 system.
- Students are weak in the basic skills.
- More emphasis should be placed on the basic education system... the classes are too big to meet the needs of children who are disadvantaged.
- The key is to look at the whole system, especially the basic system, first to improve the elementary system and then the high schools.
- The emphasis should be on the public school system, to prevent the need for adult training, especially upgrading.

* Communication, Counselling and Community Awareness

Based on the field work interviews with the public at large, the institutions and the Department of Advanced Education and Manpower a strong consensus emerged that the adult population in the study area is largely unaware of the educational opportunities and services that are available to them.

The system that currently exists is often confusing to the general public even in communities that have services such as an Alberta Vocational Centre or college. Adults with limited education, who in all probability have grown up in a remote community, find the system intimidating and confusing. Do they go to a Career Centre, an Alberta Vocational Centre, Canada Manpower or a College to get the information they need? In some communities two institutions have a presence and this too creates confusion. For example, Alberta Vocational Centre Lac La Biche and Lakeland College both serve the St. Paul, Bonnyville, Grande Centre and Cold Lake areas. The public at large is not sure who does what.

All parties involved in training - students, institutions and public agree that a much better job of communication is needed.

Closely related to the community awareness problem is a concern that adults are not receiving adequate career counselling in order to make intelligent career choices. What is not clear is who should take responsibility for counselling and communications, i.e., the high schools, the institutions or other agencies.

Comments made by people interviewed included the following:

- Students are sometimes confused about where to go for training.
- They are not sufficiently aware of what is available.
- Northerners do not have the skills to take advantage of the system.
- There needs to be more personal contact with prospective students.

* High Staff Turnover

The post-secondary institutions operating in the study area voiced strong concern over the difficulty to attract and retain quality professional staff. It is also difficult for the institutions to pay salaries to trades instructors that can compete with those paid in private industry.

- There are lots of good people but many do not stay long.
- Instructors can get more in industry.
- High staff turnover is a problem.

RMC

* Training Allowances

It is agreed by all concerned that the training allowances paid are barely adequate for single students unless the individual concerned is debt free and that the allowances for married students are inadequate.

There is also a general concern that high paying, short-term, unskilled jobs are luring many young adults away from training.

- Students should be well subsidized for any periods away from home
- They take advantage of training allowances
- They are ignorant of the system

2.8 REGIONAL VARIATIONS

As a general statement it is safe to say the more heavily populated centres in the study area are well served with adult education and training services. As previously noted, the study area has approximately 10 percent of the population, yet 40 percent of the public colleges, and 50 percent of the Alberta Vocational Centres in the province are located in the study area. Variations in service become apparent in the remote centres, which do not have the services that are available to the larger urban centres. The services of the Community Vocational Centres are available but many communities lack the sophistication to take advantage of the service, and the training offered is very limited. There is no ongoing, permanent adult training presence in these communities.

It is also true for the whole of the study area that certain training programs are simply not available and that individuals must uproot to larger centres such as Edmonton for further training. At this point in time this is true for completion of university degrees and for many of the trades and technologies depending on specialized teaching manpower or highly capital intensive instructional plants. The home study degree programs from Athabasca University have removed some former gaps but this delivery method often has a high drop-out rate.

RMC

Some communities in the study area are extremely remote from training institutions, the High Level-Rainbow Lake area for example. The MacKenzie North project is perhaps a first step to providing necessary assistance in this situation. There is definitely a need for a vocational trades training facility in the area.

A further disadvantage or regional variation that must be cited again is the poor quality of basic education that many students throughout the remote areas are receiving, often symbolized by the high drop-out rates from the public system. The recently released Report of the Northland School Division Investigation Committee made the following comment:

> "The enrolment statistics for the Division, including those attending schools outside the Division, indicate a substantial drop-out problem. A number of pupils begin dropping out at the grade six and seven levels, and the drop-out rate accelerates rapidly during junior high school. Less than 25 percent of the pupils who complete Grade 9 continue in secondary-education and less than 10 percent complete their high school". [3]

Since the Northland School Division encompasses most of the remote communities in northern Alberta we can see that a large regional variation exists in the basic education system compared to the south.

Students who have gone through such a system have experienced nothing but failure. It is, therefore, extremely difficult for them to get excited by more education unless it can be made very attractive for them. High drop-out rates also reinforce the need for basic academic upgrading programs throughout the study area for adults wishing to pursue training in the future.

2.9 OBSERVATIONS AND CONCLUSIONS

Any examination of the working of the adult education and training delivery system in northern Alberta must continually reflect the geographic, social and economic realities of the area. These realities form natural constraints on the degree and nature of system development. The sparse population, large distances between centres, relatively large concentration of Native population whose cultural patterns are different from those of the majority, and the limited economic opportunities available in many small communities, affect not only the delivery of educational services, but also the perception of their value by local individuals.

RMC

Sparseness of the population combined with the large distances between centres does potentially limit the accessibility and availability of course and program offerings. These same geographically based constraints present institutions with higher operating costs because of travel distance and climate factors, thereby creating pressures on government funding bodies for greater resource allocation.

The importance of cultural sensitivity in the delivery of education and training cannot be underestimated.* While cultural factors are not constraints in the sense that they prevent development, their existence certainly present barriers to communications and can channel the direction of its development. Availability of various course offerings is of little value if cultural barriers make them inaccessible to individuals. Equally, the notion of the value of education and training is quite strained when economic opportunities are lacking, and the time and effort spent on learning leads to no jobs, as is often the case in small communities.

These non-educationsl factors strongly influence the effectiveness of the adult education and training system, and call for special efforts to overcome geography, new efforts to introduce cultural sensitivity into programming and delivery, and renewed economic measures to increase job opportunities in remote areas.

Within the context of these system level "constraints" the evidence presented in this chapter certainly suggests that northern Albertans do have a broad range of services and programs available to them. On the whole, disparities in availability do not seem to exist, with respect to the rest of Alberta, apart from smaller remote communities and special technology programs or university completion. Further if the "bottom line" purpose of much adult education and training is to prepare for employment, success seems to exist, based on employers' reactions and in institutional responses, that their students do enter the job market after completion of courses and programs.

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* The Follow Up Report: Native Population, Subsequent to the Obstacles Report dealing with the disabled in Canada,[5] indicates that the key problem in the relationships between Natives and other Canadians, is the "inability of Native people to explain, and the inability of Non-Native people to comprehend the nature, scope and importance of Native cultures".

RMC

Examination of the question of input to program development, execution and evaluation, has shown such input to be limited to those taking a special interest and effort to participate in advisory and governing bodies, the extent of this input is substantial, representing important commitment of time, energy and interest in education and training by many individuals. A similar level of commitment seems to exist overall in much of the professional and management staff of the system, who appear to be providing a degree of leadership and performance that perhaps is truly "enlightened" given the nature of the region served.

In large measure, the strengths of the system reflect the continued commitment of significant funds to educational services in the north by Alberta Advanced Education and Manpower. The strengths also result from a strong sense of community among northerners. This sense of community shows itself through the commitment of some residents to live in the north and to make it more habitable by making services in all areas more available locally.

The system as a whole has weaknesses. While compatability between the menu of courses/programs available and people's interests seems to exist, as one interviewee noted, the adult student "must get a meal in the end". There is no clear evidence that individuals are always getting a "meal" that satisfies their needs in all communities. In the smaller ones, in fact, there are suggestions that educational programming is not as relevant as it may be to local needs.

Although commented upon relatively infrequently by those interviewed, it is the consultants' observation that the process of developing relevant "menus" of offerings (needs analysis) at the local level must be strengthened.

Coordination in the system exists, primarily through Alberta Advanced Education and Manpower, and working committees of various senior administrative groups in institutions. However, this coordination needs to be carried out more systematically, and integrated with planning. While many individual institutions have developed strategic level long range plans (e.g. Alberta Vocational Centre Grouard, Grande Prairie Regional College, Keyano College, Fairview College), the state of longer range planning at institutions and at Advanced Education and Manpower appears to be in its infancy. This becomes quite clear when comparisons are made on the content and degree of analysis presented in major planning reports developed by these institutions or by consultants, on their behalf.

RMC

A small number of interview respondents reflected more critically on the weaknesses of the system in the areas of coordination and planning:

- There is an insufficient awareness of needs.
- No binding "glue" to hold the system together. We have a network of many poorly interconnected, unmatched systems.
- There is too much sectoral interest and jurisdictional confusion. This can create destructive competition for a small number of students. As a result, no one may be served.
- A bias exists in the north against the use of southern expertise, thereby cutting off a resource and skill base which could be exploited to meet northern needs.

Based on personal experience in the region, the consultants concur with these comments and would further observe that future program offerings being proposed by individual institutions are often uncoordinated and perhaps too extensive for their service areas. This has contributed to fiscal problems for certain colleges in the study area.

The presence and impact of Advanced Education and Manpower is pervasive in the system, in view of this department's funding, licensing and control mandate. Consequently the department does monitor the development of new programs carefully to avoid duplication, and limits unnecessary duplication; however, the question of economic viability and effectiveness of providing programs to small numbers of students needs to be further addressed.

The four issues of compatibility between programs offered and those required, coordination, planning, and unnecessary duplication appear problematic in the current system. This is partly due to limited experience in the system with systematic needs analysis and planning, partly due to inadequate understanding of relative respective roles of various providers and Advanced Education and Manpower.

Based on these observations, our experience as a firm in the study area in previous assignments, and on the particularly thoughtful comments by a small number of those interviewd, RMC suggests that the current system of adult education and training is insufficiently structured (defined) and has insufficient coordination capacity. In addition, systematic planning and needs assessment capability require further development.

Accordingly, we add two more weaknesses to the list of those identified in the previous section:

* Limited System Definition and Coordination.

* Insufficient Planning and Needs Assessment Capability.

RMC

Financing also appears to be a matter of considerable concern, from both an institutional and an individual perspective. Although expenditures by Alberta Advanced Education and Manpower have been documented to be higher in the north than in other areas of the province, at least on a per student basis, the various institutions commented during interviews that financing was a continuing problem, particularly for off-campus programs. Students interviewed also cited insufficiency with training allowances as a problem, although this occasionally was tied in with lack of information about how to tap into the many sources for student financial assistance.

For students, a frequently cited weakness of the system was lack of information, communications and counselling about what was available to them. This situation was especially critical in those several sub-regions where two or more institutions or programs provided adult education services. Given the multitude of institutions and agencies briefly described in the first twenty pages of this chapter, it is no wonder that many students are confused about what options are available, much less which is best for him/her. Improvement in communication of what various institutions and programs have to offer appears necessary, as well as unbiased counselling so that prospective students can make informed decisions about their employment and training opportunities.

Geographic access to training opportunities was also observed as a common complaint of northern residents, especially those residing in remote or isolated communities. One reality of the north is that distances between centres are often long, and transportation/communication links are often poor. These distances work in two ways against students - one to make their approach to educational opportunities outside difficult and too often defeating due to practical and cultural reasons and second to make approaches by institutions to the local communities expensive in terms of financial and instructional resources.

It also seems fair to conclude on the basis of literature and field documentation that education of Native people poses special problems in northern Alberta. These problems are interwoven with others cited above, such as need for communication and counselling, financing, and geographic access to training opportunities. For Native people, these problems are exacerbated by cultural differences, not the least of which are language barriers, lack of relevant basic education and lack of exposure to employment opportunities. Education and training alone will not solve the problems of the Native community, however, sensitive integration of training with counselling and employment creation may go a long way towards enabling Native people to identify what is in their best interests, individually and collectively, and to take steps to achieve those objectives.

RMC

In summary, based on literature review, field work and on consultant opinion, the answers to the two basic questions posed at the beginning of this chapter; WHAT DO WE HAVE NOW? and HOW WELL DOES IT WORK? are:

- Northern Albertans do have a large and varied number of opportunities for pursuing their individual goals in adult education and training in northern Alberta. Availability of services in comparison to the south of the province, does not seem to be a problem, apart from smaller remote centres.

- The delivery system which provides these opportunities serves the public well, and perceives itself to be showing a reasonable degree of success particularly in view of its geographic area of service. It does, however, show evidence of problems and evidence of limited success, particularly in Native education, as well as in certain areas identified in this chapter, and in general, has limited structural definition as a goal oriented, intelligence gathering system.

NOTES TO CHAPTER 2

1. Project North Task Force. Fred J. Dumont Coordinator. "A Report of an Assessment of Educational Needs of Northern Albertans" A Study Commissioned by The Minister of Education, Province of Alberta. November 1976.

2. MTB Consultants Ltd. Training Programs Available to Native People in Northern Alberta. April, 1980. p.ix.

3. Alberta Education, Report of the Northland School Division Investigation Committee. October 1981.

4. Alberta Advanced Education and Manpower. Workshop on Manpower and Training, Record of Proceedings. Bonnyville, June 9, 1979.

5. Special Committee on the Disabled and the Handicapped. Follow-up Report: Native Population. December, 1981.

RMC

CHAPTER 3. ADULT EDUCATION AND TRAINING IN NORTHERN ALBERTA: NEEDS AND REQUIREMENTS

3.1 OVERVIEW

Whereas the purpose of the last chapter was to address the two questions WHAT DO WE HAVE NOW? and HOW WELL DOES IT WORK?, Chapter 3 addresses the third basic question of the study, WHAT WILL WE REQUIRE?

The second and third questions are in fact related. Future needs may include the requirement to improve current performance to resolve existing problems, as well as to respond to anticipated impacts the future will bring. Both requirements together constitute the planning gaps to be closed by appropriate action. This chapter focusses more on specific needs and specific manpower issues than on questions of effectiveness of existing operations which was a major subject of the previous chapter.

The chapter begins with a discussion of the changing context in Alberta affecting delivery of adult education and training services. The changing context reflects delivery system values and desires as well as economic, population and technological trends.

After this review of trends, needs identified in the literature are presented. Perceptions of needs arising from field work follows, beginning with the views of northerners, and then those involved in the delivery system for adult education. Next, an assessment of needs arising from growth in northern Alberta is presented, first considering normal growth, and then growth potentially associated with mega projects. This is followed by a brief description of Other Needs, such as the role of unions and needs of special groups. Finally, a section on observations and conclusions develops a consolidated statement of needs over a five year, and then ten year planning horizon.

3.2 A CONTEXT FOR CHANGE

The study area cannot be isolated from the general pattern of change occurring in the rest of Alberta and our society. The north is bound to be influenced by many of the same external trends and environmental forces affecting the rest of the province. Additionally, the values and intentions embodied in the professional staff of the system of adult education and training at all levels, locally and provincially, will carry beyond geographic boundaries and affect delivery and planning in northern Alberta.

3.2.1 General Trends

The following general trends and future initiatives have been identified by Alberta Advanced Education and Manpower.[1] (See Appendix 5) The trends will be reflected in the study area as well as the province as a whole.

* A general shift in population occurring as the 'baby boom' matures, and growing numbers of in-migrants will contribute to increased numbers in the adult portion of the population.

* Employment growth in Alberta has exceeded 5 percent annually on average and is expected to remain strong. To meet labour supply requirements, increased participation in the labour force, notably by women, has been accompanied by high levels of in-migration. This will continue in the future.

* While the construction, oil, gas and forestry industries may expect to see continued growth in the next decade, a shift in industrial growth is expected, with more rapid increases in manufacturing, transportation, finance, trade and service.

* Reflecting continued economic expansion and industrial shifts there will be a high demand in:

  - engineering and engineering technology
  - finance and accounting
  - computing
  - some health occupations
  - mechanics

* Technological change in the next decade will mean increased needs for on-the-job training and retraining programs.

* Enrolment in full-time credit courses has been levelling as a whole, and it is expected that increasing numbers of Albertans will enrol as part time students in credit, short course and non-credit programs.

* Program development is expected to see increased pressure in the area of specialist training to meet the demand for highly skilled manpower. The option of industry based training may form an alternative to institutionally based programming.

* Program delivery will face a major challenge to apply appropriate interactive communications technologies to complement, but not strictly add on to, existing approaches characterized by face-to-face lecture, seminar and laboratory situations.

* During the next ten years increased pressures are anticiapted for institutions to deliver credit programs individually or jointly in outlying areas.

* Justification for increased levels of expenditure of public funds for program facilities will require coordinated development in the province.

* Province wide program initiatives suggested as a "spring board for discussion and refinement" include the following three areas:

  - Technology and Trades Program Initiatives

  - Applied Arts Program Initiatives

  - Program Delivery Initiatives

* The province wide Program Delivery Initiatives will address the question of accessibility of people to post-secondary education in terms of "outreach" capability, and in terms of the application of new and evolving communication technologies to the delivery of programs. The communication aspect of this initiative will focus on:

  - Computer managed learning/Computer assisted instruction (CML/CAI)

RMC

- Integration of interactive communication technology in instruction

- Realization of a land based and satellite communication network to be accessed by individuals located in a variety of settings.

3.2.2 Special Needs Generated by General Trends

An important study by Barrington (a Ph.D. thesis) used a Policy Delphi method to assess the impact of "environmental forces" or general trends on community colleges across Alberta.[2] The Policy Delphi technique is a systematic formal forecasting methodology involving iterated deliberations on future issues, through the use of successive questionnaires completed by a select group of experts. The primary purpose of the method is to tap the collective wisdom of a group of experts to identify major issues that will be of concern in the future. Study participants included ten community college presidents, four of whom were from the study area, and seven senior Alberta Advanced Education and Manpower officials. The results of the study are important to the delivery of adult education and training in the north, particularly in view of the large service role played by institutions such as community colleges.

Sixteen major environmental forces were identified as being very significant to the development of Alberta community colleges.

When considered in relation to the most important force, six were still influential (including the major force). The major environmental forces in rank order are:

1. Demand for Technological Training and Retraining (Major Environmental Force).

2. Intensified Development of the Resource Industry.

3. A Growing Alberta Population.

4. Industrial Expansion.

5. Computer Technology; and Government Policy of Fiscal Restraint (equal).

6. Decentralization of College Services by Region.

These six environmental forces were foreseen to have two important impacts on the college system:

* Demands for Flexibility; and

* Demands for Accountability.

When considered in relation to the specific issue of Demand for Technological Training and Retraining, the study participants identified Demands for Flexibility as being more crucial than Demands for Accountability, although both were considered important.

The study also found, that in the face of the influence of other forces on the demand for technological training and retraining, four administrative areas and functions of a college would be affected by demands for flexibility and accountability. In rank order these were:

1. Programming
2. Delivery Systems
3. Planning
4. Funding

While these results arose out of a study of community colleges in all parts of Alberta, the proportion of study area and Alberta Advanced Education and Manpower senior officials (11 out of 17) suggests particular relevance to the colleges in the north. In addition, the "forces" identified confirm the essential trends of the previous section indicating a broader relevancy to the delivery system of adult education and training as a whole.

The impacts of these forces or trends focus on issues that will primarily affect the management of the system of adult education and training, at both system wide and at program/ agency levels. Increased demands for flexibility, accountability that their effect on programming, delivery systems, planning, and funding can be interpreted as a general need for enhanced management effectiveness in dealing with current problems, and responding to future changes.

3.2.3 Opportunities for Increasing Accessibility: Distance Education

While evidence in Chapter 2 suggests that residents of the study area have acceptable numbers of courses and programs available to them, accessibility to these courses and programs is another matter. The very size of the study area and its relatively sparse population mitigate against equal access to locations where services are provided.

The population to be served in the area will increasingly be in the 25-44 year category. (See Section 3.6.1) Accordingly, it will comprise working individuals, often shift workers, or migratory seasonal workers. Potential students will include the under-educated school drop-outs, individuals with limited English language skills, and those who do not identify with learning institutions because of cultural factors. Native groups, characterized by many of these factors, will form an important potential target group.

Geography, time, and social factors will tend to be constraints if not barriers to obtain training and retraining in the study area.

An approach to addressing the question of accessibility may be found in Distance Education. A British Columbia report [3] defined Distance Education as:

> "...the delivery, by a variety of communication modes, of educational programs designed to meet the needs of people who are socially or geographically isolated from traditional learning institutions".

The same report identified programs suitable for distance delivery as follows: [4]

- Programs offered on an irregular basis or on a self-paced schedule.
- Programs for small groups, or scattered clientele, whose numbers are insufficient to justify a traditional college site.
- Programs that do not have to be delivered on campus in a face-to-face mode.
- Programs aimed at a specific professional/technical group.
- Programs in areas where enrolment is limited because of lack of space or equipment or because of certain instructional needs.

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Special opportunities exist in the future in Alberta, and particularly in the study area, for the development of Distance Education. The factors which make it opportune to develop this mode of delivery include:

* The needs of the area and its population naturally match the potential capabilities offered by Distance Education.

* Alberta Advanced Education and Manpower has indicated a major policy direction for Program Delivery Initiatives as indicated in section 3.2.1.

* Athabasca University has developed major expertise in Distance Education and will be located in the study area in the future.

* ACCESS has direct experience and capability to facilitate development of this field.

* Many institutions in the area have some experience with Distance Education via the ANIK-B satellite, utilizing programming through the British Columbia Knowledge Network, and programming by various agencies and institutions including ACCESS, Northern Lights College in B.C., and Athabasca University.

* Canada has over a decade of experimental experience in Distance Education with the Hermes/ANIK satellites.

* Major technological achievements in microchip technology are dramatically decreasing the cost of electronics and hardware potentially useful for educational purposes. Computers and communications technologies are being "married" to produce a new dimension of information retrieval and instructional capability [5, 6]

* The study area is the most obvious geographic area over which Distance Education techniques and technologies could be systematically developed.

There is little doubt that the application of Distance Education techniques and methods to the north will not resolve all problems in accessibility for residents of the study area. In fact new ones will likely be created. Over a decade of experience with computer assisted instruction, for example, has provided as much insight into the problems of introducing new technologies, as it has produced instructional successes. [7]

However, the development of technology is not likely to stop, and it is difficult to see how more traditional approaches to delivery can reach the vast region of the study area. Distance Education at least offers a compelling promise, and presents an opportunity to be exploited in the interest of the needs of northerners.

With appropriate developmental experience, Distance Education may make an important contribution to increasing accessibility to educational services for adults.

3.3 NEEDS IDENTIFIED IN THE LITERATURE

The literature dealing with needs for manpower, employment and training has addressed the topic from two perspectives, one being existing needs and/or gaps in services and the other being projected or future needs arising out of economic and social development in the north.

3.3.1 Existing Program Gaps and Needs

Over the past several years, more than ten studies have explored and discussed northern needs for training. Most of the studies dealt with a specific locale, such as Grande Prairie, or Improvement District #23 and/or a specific population such as Native people in Fort McMurray region. Because of these specific emphases of the studies, some unique training needs emerge, e.g., the specific need for agricultrual training for residents of the La Crete area. On the other hand, several common perceptions of gaps or demands for training emerged from these studies. Perhaps not coincidentally, these same gaps emerged in the Co-West socio-economic overview of all of northern Alberta. The primary programming needs expressed in these studies were:

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* Vocational, Trades Training

With few exceptions, the studies reviewed placed a high priority on the provision of vocationally oriented, trades training. Co-West (1981) found this to be the case across northern Alberta. The Task Force on Vocational Education Improvement District #23 (1979) made a strong plea for vocational training based on its survey among residents in the High Level, Rainbow Lake, Fort Vermilion, La Crete regions. Tang (1980) in his survey of people in the service area of AVC Grouard heard people suggesting most frequently the need for the Centre to "offer more advanced trades courses in cooperation with Fairview College, NAIT or SAIT." Nichols (1976) and the Keyano College (1979) advisory committees found similar expressions of need in northeastern Alberta. Several surveys that had been conducted among Native people (Littlejohn et al., 1981; Hobart, 1979; RMC Resources Management Consultants, 1982) have confirmed the expressed aspiration of Native people to take training in some trade. RMC's recent sample survey among the Dene Tha in northwestern Alberta found not only a strong eagerness for employment, but also high interest in training for skilled and semi-skilled jobs, such as heavy equipment operation, carpentry, and mechanics. Preliminary findings from a survey presently underway by Mackenzie North indicates that other residents of the same region have a high interest in training for practical work skills such as meat cutting, cabinetry and drafting (personal communication).

* Business Management

A second training need mentioned in several studies was business management and administration, particularly for small business operations. Co-West (1981) heard this in their interviews across northern Alberta; the Task Force on I.D. #23 (1979) reported a similar need; and Littlejohn et al., (1981) heard Native people in northeastern Alberta requesting training in management and business operation. Preliminary findings from the Mackenzie North Survey indicate a high interest among respondents in business education courses and related subjects such as accounting and computing science (personal communication).

* Literacy, Upgrading and Job Readiness

Thirdly, studies have reported interest and need for basic education such as upgrading and literacy in order to meet minimum qualifications for trade and other training and employment (Co-West, 1981; Littlejohn et al., 1981; RMC, 1982). This interest in basic literacy and upgrading is not limited to Native people alone, although many do recognize the value of this type of education. Other cultural groups, such as recent immigrants, also have expressed a need for such learning experience. Job readiness, including basic life skills, is also frequently cited as a training need (e.g., Tang, 1980). It should be noted that these needs are most frequently mentioned by residents of isolated communities which have relatively few adult education programs available locally.

* Human Services

Several studies (Warner, 1980; Co-West, 1981) have suggested a need for training for human service workers in the health, education and social services fields. These training needs tend to range from para-professional to professional and to continuing education and skill upgrading. Although it seems relatively clear that there exists a high demand for trained manpower in the human services across the north, it is not as clear as to what training programs are needed to meet this demand. One study (Canadian Institute for Research in the Behavioural and Social Sciences, 1979), for example, has provided evidence that graduates of some para-professional courses have not been employed due to lack of jobs in their home communities. This may be one need area deserving of further study since all of the institutions interviewed in the course of RMC's field work felt that graduates from their programs were having little difficulty finding employment.

3.3.2 Future Needs

Except for one study (Management Advisory Institute, 1980) dealing with projections of highly qualified manpower requirements during the period 1981-1985, no specific documentation appears available regarding future manpower and training needs in the study area per se. However, over recent months two major studies have been released regarding employment trends and projections for Canada as a whole (Dodge et al., 1981; Allmand, 1981).

In addition Alberta Advanced Education and Manpower has prepared on a continuing basis sets of papers regarding employment trends for Alberta, based upon various scenarios regarding economic growth in the province. While these studies cannot be applied directly to northern Alberta, the trends suggested must be taken into account, if only as indicators of job categories where demand will be high nationally and provincially, thereby creating problems in attracting migrants to the north and/or retaining skilled people in the north.

Work for Tomorrow: Employment Opportunities for the "80's is the final report of the Parliamentary Task Force on Employment Opportunities for the '80s. Chaired by the Hon. Warren Allmand, its findings and recommendations are wide-ranging and controversial, including major proposals for new employment and training strategies designed to increase full employment of Canadians. Many of these proposals have been viewed with alarm by the provinces who see them as federal incursions into what is a provincial responsibility. Regardless of how these issues may be handled in the future, the basic assumptions underlying them are of immediate interest here, particularly those related to manpower and employment trends through the present decade.

In Chapter 2 "Projections for the '80s", the Task Force presents their evidence regarding trends in employment. Although the overall conclusion is that Canada is likely to face a labour surplus through the '80s and an unemployment rate in 1990 comparable to what it was in 1980, there will be shortages of labour in some parts of the country and in some occupations. Alberta is one such region where labour shortages may exist in 1990. Occupations wherein shortages presently exist and are projected to continue include:

- engineers
- geologists
- geophysicists
- construction labour, particularly:
  - pipefitters
  - welders
  - boilermakers
  - ironworkers
  - millwrights
  - operating engineers
  - insulators
  - teamsters
  - electricians
  - labourers
- skilled trades
- data processing professionals

TABLE 3-1

Employment by Industry, Alberta, 1981-1980
(figures in thousands unless otherwise specified)

Industry	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Average Annual Growth Rate (%)
Agriculture	82	83	84	85	86	87	88	89	90	91	1.2
Other Primary Industries	68	73	80	84	88	91	95	99	102	105	5.0
Manufacturing	104	112	118	123	131	138	147	155	163	172	5.8
Construction	106	114	123	129	136	141	145	147	149	151	4.0
Transportation, Communication and Other Utilities	98	102	108	115	120	128	133	139	145	151	4.9
Trade	197	208	219	232	245	259	272	290	303	315	5.4
Finance, Insurance and Real Estate	59	65	69	74	78	81	85	90	94	99	5.9
Community, Business and Personal Service	309	325	344	365	386	406	430	454	478	500	5.5
Public Administration	70	75	78	83	86	90	93	96	100	104	4.5
TOTAL	1 093	1 157	1 223	1 290	1 355	1 420	1 488	1 558	1 624	1 688	5.0

Note: Components may not add to totals because of rounding.

Source: Estimates prepared by the Planning Secretariat, Alberta Advanced Education and Manpower, September, 1981. From Employment Trends in Alberta, October 1981.

Other occupational groups or industrial sectors with continuing shortages include:

- technicians specializing in project development and architecture
- medical, nursing and health personnel and technicians
- specialized sales personnel
- management and management-related personnel
- manpower planners and specialists
- machine operators and personnel in related sectors
- specialized workers in manufacturing, assembly and repair
- construction personnel
- transport operation personnel
- microelectronics industry, with a broad range of occupational skills
- the emerging biotechnology industry
- the telecommunications industry

The Alberta perspective on forecasts of provincial manpower trends was most recently reported in Employment Trends in Alberta (Alberta Advanced Education and Manpower, October, 1981). This forecast, which is a maximum growth scenario including the Alsands and Esso Cold Lake projects and based on settlements reached on the Energy Pricing Agreement, projects an overall rate of growth for employment through the '80s to average 5.0 percent.* Table 3.1 shows the projected growth patterns by industrial sector. A shift in patterns is anticipated: although Primary Industries (which include Mining and Gas and Oil) and Construction are expected to continue to show strong growth, Manufacturing and the Tertiary Sector (Transportation, Trade, Finance, Insurance and Real Estate, and Community, Business and Personal Service) are expected to grow even faster. The Department anticipates high demand, as a result of continued economic expansion, for occupations as follows:

- professionals, such as engineers, accountants, systems analysts and computer programmers.

- skilled trades, such as electricians, insulators, welders, pipefitters and plumbers.

- highly qualified and specialized manpower for research and high technology industries.

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* As of late April 1982, Advanced Education had stopped issuing this particular report, indicating that the projections were probably misleading (too high) in light of current economic events.

Table A3.1 in Appendix 1 provides examples of occupations anticipated to have high demand over the 1981-1990 period.

Finally, reference can be made to the study prepared by the Management Advisory Institute (1980) regarding Projection of Highly Qualified Manpower Requirements in Northern Alberta, 1981-1985. According to this study the largest sources of demand for highly qualified manpower are replacements for persons leaving jobs in northern Alberta and changes in the number of positions requiring highly qualified staff. Replacement demand for teachers is in the "hundreds" each year, with specialty teachers in particular demand and short supply. Positions in health care and social services are expected to be in high demand, arising primarily from the hospital construction program presently underway. Occupational areas expected to be in high demand during the 1981-1985 period are shown in Table 3.2. They appear to be consistent with findings presented in studies cited above.

Table 3.2

OCCUPATIONAL AREAS EXPECTED TO BE IN HIGH DEMAND 1981-1985

MANAGEMENT/ADMINISTRATION
- general managers and other senior officials
- administrators in teaching and related fields
- administrators in medicine and health
- financial management occupations
- accountants, auditors and other financial officers
- personnel and related officers

NATURAL SCIENCES/ENGINEERING/MATHEMATICS
- chemists
- geologists and related occupations
- architects
- chemical engineers
- civil engineers
- industrial engineers
- mechanical engineers
- mining engineers
- petroleum engineers
- surveyors
- architectural and engineering technologists and technicians
- systems analysts, computer programmers

SOCIAL SCIENCES
- psychologists
- social workers
- occupations in welfare and community services
- lawyers and notaries

TEACHING
- teachers in general
- community college and vocational school teachers

MEDICINE/HEALTH
- physicians and surgeons
- dentists
- veterinarians
- nurses, graduate, except supervisors
- nursing assistants
- nursing aides and orderlies
- physiotherapists, occupational and other therapists
- dental hygeinists, assistants and technicians.

SPORTS/RECREATION
- Sports and recreation, in general

Source Management Advisory Institute, 1980 pp. 57-59

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3.4 NEEDS AS PERCEIVED BY NORTHERNERS

3.4.1 Observations from Employers

During the field work portions of the study, contacts were made with over forty representatives of business and industry in order to obtain opinions on present and future major needs for employment and training in the north. A cross-section of employers was interviewed. One group represented major employers in specific locations, such as Syncrude, Suncor, Proctor and Gamble, Canfor and Zeidler Forest Products. Another group included employers with staff located in various communities across the north, such as Alberta Government Telephones, Alberta Power, Royal Bank and Bechtel Canada. Thirdly, owners of small businesses such as building contractors, equipment suppliers and store owners were also interviewed.

Employers tended to discuss their perceptions of needs on two different levels, one being specific types of trained manpower needed in their business or community and the other being more general needs regarding training organization and delivery.

1. Manpower Needs. As would be expected, perceived demands for specific occupations varied considerably, but there were also some common observations. Some of the needs related to the gaps where no training programs existed in the Province, such as industrial fire fighting, saw filing for forestry operations, and corrosion engineering. Employers coped with these gaps in several ways: by hiring trained people from out-of-Province or out-of-country, by sending employees out of Province to acquire such training, or by offering the training themselves on the job. With respect to industrial fire fighting, one employer suggested that perhaps a program could be developed to expand the opportunities available to Native people who have been trained as forestry fire fighters.

Several occupational or skill areas were mentioned by a number of employers as being in high demand. Major areas of demand mentioned by resource-based industries were:

* Welders, cited by oil companies, forestry, and contractors as being in extremely short supply.

* Millwrights, also needed in both the forest products and oil and gas processing sectors.

* Steam Engineers, needed in in-situ oil sands operations and in the pulp and paper industry.

* Heavy Duty Mechanics, needed for a variety of industries.

* Process Operators for oil and gas industries.

The small businesses contacted also indicated a general need for personnel skilled in trades such as welding, mechanics, machinists, etc. In addition, those in the smaller, more remote communities mentioned the need for business management skills and for "practical" or "human service" skills such as meat-cutting, clerical, cashiering, bartending and hospitality.

2. General Requirements. With respect to more general needs in training, employers mentioned the following:

* job readiness skill training and basic life skills to enable unskilled people to enter the workforce and progress through job training

* apprenticeship training available locally -- this was especially of concern to owners of small businesses who found it difficult to "keep the shop going" while their apprentices went out for periods of classroom training

* improvements in training allowances and student support services to take account of special circumstances facing northerners who have to leave home and family for training

* improvements in career counselling to prospective employees and students

In general, when asked about future needs, they tended to say "more of the same". In addition, they cited changing occupational skills demand related to technological change, e.g., increased demand for computer programmers and operators, electronics technicians, and specialized trades such as Pressure "B" Welders.

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3.4.2 Observations from the Public at Large

Approximately eighty representatives of the lay public throughout northern Alberta were also asked whether their community needs for training and adult education were being met at the present time. Responses to this question tended to vary in accord with what was available in the community. Fort McMurray contacts indicated that, by and large, their needs were being well met, with the exception of Native residents. This was also the case in other centres serving as home base for colleges and AVC's. However, those in smaller, more remote communities were less positive about their needs being met and generally identified more weaknesses. Major areas of concern are summarized below, each being followed by illustrative comments from field interviews.

1. Basic, public education system. Although the interview schedule did not probe into the pre-adult system, many respondents spontaneously reported that the most problematic area was the public education system, citing high drop-out rates as one indicator of its failings, particularly in the outlying, more remote communities.

   Some reasons given for failings of the basic system included lack of flexibility to meet the varying cultural needs of communities; the lack of role models to encourage students to stay in school; the lack of vocational training for students not interested in academics; and the availability of highly paid unskilled jobs in the area. Several respondents commented that the adult system itself was undermining the public system, in that students could drop out of high school, wait a year or two, and then take training with pay.

   * High paying unskilled jobs are luring youngsters away from high school.

   * More emphasis should be placed on the basic education system... The classes are too big to meet the needs of children who are disadvantaged. These children drop out of school and later attend AVC for upgrading.

   * Basic education must change to include instruction in vocational education. Improved communication skills must be taught K-12.

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* There's been a real problem here, due to cultural and religious backgrounds, with school dropouts.

* Our major need is for vocational training in the trades. The public school needs more vocational programs.

* Parents are disappointed that young people can't get education locally. Funding is not sufficient to enable students to come back home, so they often get lonely and drop out.

2. Native education. The needs of Native people were singled out as another major concern. Respondents -- both Native and non-Native -- specifically cited the need for more on-reserve and local training for Indians and Metis living in isolated communities; the need for training to be tied more closely with job opportunities and job creation in the local community; the need for day care and housing to enable adults with families to take training, especially when available only outside the home community; the need for support systems and basic life skills training to enable Native people to make the transition from their home community to an institutional setting; and the need for role models, for both employment and training.

* The single major unmet need is that of education for Native people in outlying communities... but the key is to look at the whole system, especially the basic system, first to improve the elementary system, then the high schools.

* The curriculum is not appropriate for Native students. Many do not enjoy academic subjects and therefore do not succeed. Vocational training courses directed to a trade should be compulsory.

* Native people are not always getting a good deal... there should be more training on the reserves.

* For Native people there is no career guidance... and no follow-up to jobs is available. Sometimes students cannot handle the "real" job situation and will end up back in school.

RMC

3. Local vocational, trades training. Many individuals cited the need for provision of vocational/trade training at the local community level. Those in small, remote communities were realistic in their aspirations, calling for cooperation between the high schools and adult programs (e.g., community schools) to provide these opportunities. They also cited the need to tie such training together with job opportunities, present and future, in the local areas. Also frequently mentioned was the need to provide on-the-job training and to be flexible in apprenticeship training.

   * There are many needs in our area that are not being met. Most of our young adults must still leave the area and go to the City. They usually do not come back. If the training were more local they would likely remain here because there are lots of jobs here.

   * There is a real need to bring courses as close to home as possible.

   * More programs, especially full-range apprenticeship, should be offered locally.

   * The lack of industry and lack of vocational skills are major problems.

   * There's a complete lack of training for marketable skills, especially for the women in the community who would jump at the opportunity in order to get work with the service companies in the area.

   * There are many needs here, primarily for basic skills and training. More should be provided locally, especially on reserves, where basic life skills are needed. Also, courses on reserves should be more closely related to job opportunities, and counselling should be available.

   * The major weakness is lack of programs locally. Although people could go to AVC's or colleges, they face problems, the biggest of which are lack of day care, lack of accommodation, and need for counselling.

RMC

4. Counselling. Counselling of several types was cited as a need or weakness of the present system. Some respondents felt that people, including high school students, were not aware of the existing opportunities for training. Others felt that young people were not receiving adequate career counselling in light of local job opportunities (present and future), training requirements, funding, etc. Others cited the need for basic life skills training and counselling to help northerners (not only Natives) make the transition to large centres when job opportunities did not exist in their home community.

   * There's a general lack of awareness here about institutions, the courses they offer, jobs that are available, and ways and means to get training.

   * There needs to be more centralized control and co-ordination of adult education activities throughout the region. Students don't know for sure who to go to about adult education matters.

   * AVC is not advertising enough - they should meet with students, offer a seminar on choices.

   * There's a lack of awareness of the need for education and of what is available.

5. Coordination between employment and training. Some respondents indicated a need for improvements in the relationships between industry/employers and the providers of education and training, in order to make the fit between training and employment better.

   * Training is not meeting industries' needs. A liaison is needed between industry and government.

   * The Environmental Impact Assessment back in 1979 recommended that Esso provide training for people in preparation for the boom. Nothing has been done! This should be a priority.

   * Training should be tied to jobs, e.g., trainee assigned to a worker who acts as a role model in the work environment.

RMC

* One weakness is a lack of coordination and involvement at the local level. Another is that Advanced Education and Manpower is reactive rather than training for future needs.

* Economic development of the reserve must occur at the same time as educational programming so that job training relates to jobs and employment on reserves.

* I don't think the institutions are working closely enough with employers to train people for present and upcoming positions.

6. Quality of instruction. Several respondents cited the difficulty in attracting and retaining qualified instructional staff, especially to small communities lacking the amenities of larger centres.

* There's a lack of courses, qualified instructors, and lack of jobs locally... Also, people haven't been exposed to very many jobs. The fact that all the skilled people who come here, be they doctors, nurses, plumbers or what have you, are from the south reinforces the perception that only people from the south can get those jobs.

* It's hard to draw qualified people for instructors due to lack of amenities -- qualified people tend to come and go in cycles.

In general, perceptions of future needs paralleled those above, with even more emphasis on vocational training and retraining to respond to changing technology and to enable northerners to participate in mega-projects.

RMC

3.5 NEEDS PERCEIVED BY DELIVERY SYSTEM REPRESENTATIVES

3.5.1 Views from Officials of Alberta Advanced Education and Manpower

In interviews with officials of the Department of Advanced Education and Manpower, respondents were asked if they felt the present system of training and adult education is meeting the needs of northerners. There did not appear to be a clear consensus as to whether the system is meeting needs adequately. These are the personal views of those interviewed and not official government policy.

One issue that emerged as a point of consensus was that Native people are not being served as well as the general population. This is due in large part to the fact that Natives appear to be victims of jurisdictional disputes between the Provincial and Federal Governments.

There was general satisfaction that the post-secondary institutions in the study area are doing a satisfactory job. The AVC's and CVC's were mentioned in several interviews for the good work they are doing:

* The needs are being met adequately as far as they have been adequately identified.
* Generally yes. The Native population should have more training available on the reserves.
* The adult system is meeting needs satisfactorily. The real problems are with the K-12 system.
* The system is there to meet needs but people are not making use of it.
* The AVC's are doing a good job but have a limited number of programs.
* The system is capable of meeting needs but too many people want programs delivered to their doorstep.
* There are disparities in the north because of distance, cultural barriers and lack of economic opportunities.

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In response to a question regarding needs for training and adult education in the immediate future and five to ten years in the future, most officials responded in terms of the immediate future and the next five years. The future impact of the technological change brought about by the rapidly expanding use of computers and other technologies is a concern to some. However, the main concern was clearly the impact of the proposed mega-projects. Training for these projects will obviously be a priority item. Social problems created by this type of development was also a concern.

* There will need to be some specific training for the mega-projects.

* There will be pockets of development.

* It will be important for adults to have access to good information relative to what is available to them for training.

* People working as adult educators need professional training.

* Local leadership and administrative skills must be developed.

* In five years there will still be economic disparity but adult educators should focus on a good foundation program in mathematics, language skills and general knowledge.

* Literacy and life skill training will be needed to help people cope with the system.

* There should be a heavy emphasis on economic development with a corresponding emphasis on developing skills among the people to take advantage of the developments.

3.5.2 Views of Representatives of Institutions and Agencies

Approximately sixty-five representatives of institutions and other agencies delivering adult education and training in the north were asked what they perceived to be the major training needs, present and future. Common responses were:

* A major need for trades and apprenticeship-type training, such as welding, carpentry, electronics and automotives. Trades training was the most frequently mentioned training need, for both the present and future.

* "Vocational" training was also frequently mentioned, to encompass more than trade or apprenticeship training. The focus should be on training and preparation for jobs.

* Business management training was also frequently mentioned, particularly in the smaller, more remote communities.

* Basic literacy, job readiness and life skills training were also identified as areas for further work, especially to enable those in isolated areas to overcome thier educational disadvantages and to acquire the skills necessary to cope with the work environment.

* Provision of training in the health and social services, such as nursing assistants, community health aides, teacher aides was mentioned with some frequency, specifically in those communities where no such programs exist.

3.6 NEEDS GENERATED BY GROWTH

3.6.1 Needs Arising from Continuing Growth

As pointed out in the first chapter, Section 1.3, population in northern Alberta has been increasing at a rate in excess of the province as a whole. It is fair to assume that such growth has resulted not only from natural factors such as increased births, but also from immigration associated with economic development.

Population Growth

As shown in Table 3.3, population in the study area is projected to continue its increase throughout the eighties. These projections are based on 1976 census data. The fact that the 1981 actual population (262,497) for the three Census Divisions exceeded that of the 1981 projections in Table 3.3. suggests that the 1986 and 1991 projections are likely quite conservative.

Table 3.3

Projected Population for Census Divisions 12, 13, 15

	1981	1986	1991
Census Division 12	73,490	85,500	102,590
Census Division 13	53,170	58,740	64,320
Census Division 15	113,330	122,600	130,480
Total	239,990	266,840	297,390

Source: RMC calculation based on Series 5 projection from Alberta Bureau of Statistics, Census Division Population Projections, Alberta 1977-1991, September, 1979

Detailed 1981 census data broken down by five year age categories were not available at the time of writing. Recognizing the limitations of using 1976 based projections, and assuming that the study area is adequately represented by Census Divisions 12, 13 and 15, an important study area trend can be demonstrated.

The most rapidly growing age group in the study area is the 25-44 years old group, a prime target for adult education, training, and retraining. This group will grow from 26.3 percent to 31.8 percent of the population between 1981 and 1991 as in shown in Table 3.4. Table 3.4 also shows a decrease in the study area in both 0-14 and 15-24 year old categories from 21.2 percent to 17.5 percent between 1981 and 1991, respectively.

Table 3.4

PROJECTED AGE DISTRIBUTION
CENSUS DIVISIONS 12, 13 15
(percent)

	1981	1986	1991	Directional Change
0-14	29.6	28.1	27.4	Decreasing
15-24	21.2	20.1	17.5	Decreasing
25-44	26.3	28.8	31.8	Increasing
45-64	15.6	15.6	15.6	Stable
64 +	7.3	7.4	7.6	Increasing
TOTAL	100.0	100.0	100.0	

Source: RMC calculations based on Census Division Population Projections Alberta 1977-1991, Series 5, September 1979.

It should be noted that these data are based on projections which do not take into account the potential impact of proposed mega-projects. Accordingly, a "base case" situation which projects the future from its recent past, suggests that current levels of training will need to be increased since the target population for adult education and training in the study area is growing. Since the 15-24 year olds are also decreasing, emphasis will likely have to shift to the provision of upgrading and retraining, slightly away from training and education of younger students arriving for the first time at post-secondary institutions.

The primary conclusions to be drawn here for the delivery system in the next five and ten year period reflect the fact that by 1986, 63.0 percent and by 1991 about 65.0 percent of the projected population will form the principal target group for adult education and training (15-64 category). The natural growth and shift in age structure of the study area population will require a corresponding growth in educational and training services. Even without the impact of mega-projects, population growth, increased participation rates, normal economic activity and technological change will result in the demand for new and expanded service delivery in the study area. As well, weaknesses in the system will have to be overcome, and the needs of special target groups (e.g. Native people) will still have to be addressed.

Economy

Co-West (1981) in their overview of the socio-economic conditions in northern Alberta examined the potential for economic development in the study area (See Section 1.3 for a full summary). Their study pointed out that the labour force of the north was principally employed in the Services and Trades, Agriculture, and Manufacturing (etc.) sectors, accounting for 91 percent. The Energy and Forestry sectors accounted for the remaining 9 percent. Thus, although development associated with major energy projects often takes centre stage, its relative position as a source of employment is much more modest.

Co-West also point out that several sectors are anticipated to grow in the future. Agriculture is expected to continue to expand; recent experience[8] in the High level region suggests that this expansion has been occurring and is likely to do so in the future. The outlook for forestry and mining is also considered to be good, and continued growth of the retail trade sector is anticipated. Although the service trade sector has not been growing in recent years, there is some reason to believe that it will grow in the future, if only to provide a level of service comparable to that in the south.

RMC

The primary conclusion to be drawn from these trends is that even without mega-project developments in the energy sector, the labour force in northern Alberta is expected to grow. If residents of the north are to take advantage of employment opportunities, they will need not only access to training programs, but also information and counselling regarding such opportunities.

3.6.2 Needs Generated by Mega-Projects

Introduction

Economic and political circumstances over the past year have created increasing uncertainty as to the future of hydrocarbon megaprojects in Alberta. Previously, there was strong optimism that all the proposed major projects in the study area would be built at some time or another, perhaps staggered in their timing, or perhaps overlapping.

However, with the recent announcement by Esso of the freeze on their Cold Lake Heavy Oil development; with Syncrude postponing their plant expansion; with Husky Oil curtailing its plans for development of heavy oil; and with the Alsands Consortium cancelling its project; it becomes increasingly apparent that none of the proposed mega-projects can be taken for any more than what they actually are: only proposals.

To compound the problem, the world price of oil has recently been showing a trend toward moderate decline due to a Saudi Arabian inspired oil glut resulting from price induced demand reduction in U.S., Japan and Europe; and the fact that many OPEC countries are now selling their crude at a discount from the set world price. Some analysts suggest a more than moderate decline as the probable trend for the not too distant future.

These current and anticipated declining price trends place at risk the credibility of negotiated oil pricing, the rate of return, and the tax regime agreed to by Ottawa and Edmonton. It could be that Canadians may have to pay in excess of world price for oil in order to maintain a Canadianized petroleum industry if any of the non-conventional mega-projects are undertaken, either by private industry or Crown corporations.

In view of such uncertainty, and to clearly identify the limitations of this section, the following points are noted. From an industry manpower demand point of view we are looking at a fractional slice of time, a photographic instant. The future we think we see is very dependent on the picture of our present, and our immediate past.

The demand figures presented have been abstracted from several sources and all have been published prior to Esso's Cold Lake Project suspension announcement. Nonetheless, because Esso technically only shelved, as opposed to terminated, their project, we will maintain the manpower demands as published.

These limitations present us with a very elusive moving target, with changes, modifications, delays and other problems more the rule than the exception. The limitations reflect the degree of uncertainty surrounding the mega-projects, and should be kept in mind when viewing the forecast manpower demands for the projects proposed for Northern Alberta during the 1980's.

Forecast Manpower Demand Overview

The body of knowledge regarding manpower demand as a result of economic activity in Alberta is generally in agreement. All recent published studies assume that there will be one or more major non-conventional hydrocarbon extraction projects under construction in the study area at some time during this decade.* For example, a recent report dealing with manpower trends produced by the Alberta Advanced Education and Manpower Planning Secretariat states:

> "It is expected that major resource developments will provide the impetus for Alberta's economic expansion in the 1980's. The requirements for skilled manpower associated with these projects are enormous. Employment will also be created in other industrial and occupational sectors as an indirect result of these projects. Therefore, dramatic population increases can be expected in those regions where development of major resource projects occur." 9

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* It is, however, understood that in late April 1982 the Manpower Planning Unit of the Planning Secretariat, Alberta Advanced Education and Manpower, was preparing a provincial forecast of manpower trends based on a more moderate rate of economic growth, i.e. without hydrocarbon mega-projects such as Alsands and Cold Lake. At the time of publication of this report, it appeared unlikely that this forecast would be available before June, 1982.

Sources generally conclude that during the eighties, as a result of continued economic expansion there will be high demand for professionals such as engineers, accountants, systems analysts and computer programmers. Construction of many of the large industrial projects expected to start in the eighties will generate high levels of demand for many trades - electricians, insulators, welders, pipefitters, and plumbers. Also, the increased emphasis on research and the encouragement of high technology industries will increase the demand for highly qualified and specialized manpower.

Most data also suggest that the rate of growth in manpower demand is expected to exceed Alberta's domestic supply growth capabilities. As a result, industry will continue to be dependent on in-migration to prevent manpower shortages especially in some of the key trades required for large industrial construction projects. The same is likely true for operations and maintenance phases of these projects.

Recent Experience

Industrial construction projects have played a very important role as an economic stimulus to the province as a whole and especially to northern Alberta. Table 3.4 shows that the total number of projects under construction in northern Alberta (63) as of December 31, 1980 represented some 25 percent of all industrial construction projects in the province. However, these 63 projects represented some 74 percent of the total project cost of all Alberta projects. Additionally, 82 percent of all people employed on industrial construction projects in Alberta were employed in the study area. The Petroleum and Petrochemicals sector was by far the most significant, in terms of both project cost and manpower demand, as is also shown in the same table.

The data in Table 3.5 provide a comparative base for reference when analyzing tables in this chapter. Because this information reflects projects under construction in January 1981, many of which are continuing through to the present, it provides a reasonable window through which to view the current situation in the study area with respect to large industrial construction projects.

TABLE 3.5

ALL INDUSTRIAL PROJECTS
UNDER CONSTRUCTION
IN CENSUS DIVISIONS 12, 13 AND 15
AS OF DECEMBER 30, 1980

	PETROLEUM & PETROCHEMICALS			FORESTRY & LUMBERING			OTHER INDUSTRIAL SECTORS[1]			TOTAL ALL INDUSTRIAL SECTORS		
	# of Proj.	Project Cost ($mm)	Man-power	# of Proj.	Project Cost ($mm)	Man-power	# of Proj.	Project Cost ($mm)	Man-power	# of Proj.	Project Cost ($mm)	Man-power
CD12	11	10,652	10,500	-	-	-	5	26	58	16	10,678	10,558
CD13	5	98	-	1	-	4	3	2	67	9	100	71
CD15	9	83	-	6	180	648	23	14	90	38	277	738
All other CD's	47	2,803	780	-	-	-	140	1,039	1,723	187	3,842	2,503
TOTAL	72	13,636	11,280	7	180	652	171	1,081	1,938	250	14,897	13,870

1. Includes: Agricultural Processing, Other Manufacturing, Mining and Minerals, Utilities, Transport and Grain Handling.

Note: All Project Costs in 1980 Dollars

Source: Alberta Economic Development, List of Construction Projects. January, 1981

Table 3.6 shows that of all the industrial construction projects (125) proposed for the province in 1981, only 22 percent were slated for the study area. However, these 28 projects were indeed significant for they represented nearly 70 percent of the total project cost for all industrial construction projects proposed for the province, some twenty-five billion dollars.

The projects proposed for the study area would also provide a larger than proportionate employment, as they represented a manpower demand for peak construction periods of some 15,700 persons, or 64 percent of the total manpower demand created by proposed industrial construction projects in the province.

The vast majority (82 percent) of all industrial construction projects proposed for the study area were in the Petroleum and Petrochemicals sector. Additionally, almost all (99 percent) of the project cost estimates were for this sector. More importantly though, 97 percent of the 15,700 persons required for all projects proposed for the study area were in the Petroleum and Petrochemicals sector. Quite clearly, if one or two major projects proposals are delayed or terminated, then there will be an economic downturn for the province as a whole, but more especially for the study area.

TABLE 3.6

ALL INDUSTRIAL PROJECTS
PROPOSED
IN CENSUS DIVISIONS 12, 13 AND 15
AS OF DECEMBER 30, 1980

	PETROLEUM & PETROCHEMICALS			FORESTRY & LUMBERING			OTHER INDUSTRIAL SECTORS[1]			TOTAL ALL INDUSTRIAL SECTORS		
	# of Proj.	Project Cost ($mm)	Man-power	# of Proj.	Project Cost ($mm)	Man-power	# of Proj.	Project Cost ($mm)	Man-power	# of Proj.	Project Cost ($mm)	Man-power
CD12	11	22,919	13,800	-	-	-	1	-	-	12	22,919	13,800
CD13	2	400	1,400	-	-	-	3	276	500	5	676	1,900
CD15	10	727	-	-	-	-	1	8	-	11	735	-
All other CD's	56	7,831	6,078	3	360	500	38	2,317	2,198	97	10,508	8,776
TOTAL	79	31,877	21,278	3	360	500	43	2,601	2,698	125	34,838	24,476

1. Includes: Agricultural Processing, Other Manufacturing, Mining and Minerals, Utilities, Transport and Grain Handling.

Note: All Project Costs in 1980 Dollars

Source: Alberta Economic Development, List of Construction Projects. January, 1981

Forecast Situation*

Almost all (78 percent) of the so-called mega-projects recently slated for development in the study area are currently on a "hold" status. This is demonstrated in Appendix 1, Table A3.2 which provides a listing, as of January 1982, of major industrial projects (over $20 million) proposed or under construction for the study area during the next decade. The prospects for a positive decision on the part of the various proponents to proceed with these projects are at best even, at least in the short to mid-term future.

Analysis of the manpower requirements generated by projects over $20 million demonstrates a minimum estimated need for more than 26,500 persons during the peak periods of project construction for all industrial sectors. As with other estimates, the proportion of the manpower demand inspired by Petroleum and Petrochemical sector is dominant, requiring at least some 25,500 persons of the total that has been estimated. (Appendix 1, Table A3.2).

The dominance of the Petroleum and Petrochemical sectors in manpower demand is overwhelming. Just three projects listed, Esso Cold lake, Alsands and Canstar, account for some 19,500 persons or 77 percent of the peak manpower demand forecast for this sector, and 74 percent of manpower demand for <u>all</u> industral construction projects over $20 million. Consequently, the lack of manpower estimates for many smaller projects will not affect conclusions regarding major manpower trends.

The dominant nature of the Petroleum and Petrochemical sector, and the pre-eminence of the Esso Cold Lake, Alsands and Canstar projects can be used to simplify the analysis of trends for future manpower demand. Since these three projects account for such a significant proportion of forecast demand, they will provide the framework for a more detailed analysis on a jobs-by-trade basis.

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* This subsection refers extensively to Table A3.2, Appendix 1.

Manpower Demand Estimate by Trade

Given the general similarity in scale and purpose among the proposed hydrocarbon mega-projects, it is reasonable to assume that, regardless of size, they will be generally similar in proportional breakdown of their respective total peak manpower forecasts. From Esso's Cold Lake Training plan [10] we have abstracted such proportions of the average annual on-site manpower forecast and presented them as Table 3.7 in this section. The various proportions by trade have been applied to the other relevant major projects, to obtain an estimated proportional trades listing of their forecast peak demands. These calculated figures are shown in Table 3.8.

Projects which are not hydrocarbon extractive, for example, the forest industry, require manpower categories in different proportions, and therefore the Cold Lake Training Plan figures are of little value. However, since the Petroleum and Petrochemicals sector is so dominant, its general needs will serve as a reliable trend indicator for all sectors.

TABLE 3.7

AVERAGE ANNUAL ON-SITE CONSTRUCTION JOBS BY TRADE
ESSO COLD LAKE PROJECT

Trade	Peak Year	
	Manpower	Proportion
Boilermakers	399	7.3%
Carpenters	377	6.9%
Cement Workers	54	1.0%
Electricians	400	7.4%
Insulators	435	8.0%
Iron Workers	446	8.2%
Labourers	635	11.7%
Millwrights	90	1.7%
Operating Engineers	651	12.0%
Pipefitters	1199	22.1%
Pressure "B" Welders	600	11.0%
Sheel Metal Workers	109	2.0%
Teamsters	40	0.7%
Total	5435	100.0%

Source: Esso Resources Ltd., Cold Lake Project Training Plan

TABLE 3.8

ESTIMATE OF AVERAGE ANNUAL ON-SITE CONSTRUCTION JOBS BY TRADE FOR MAJOR PETROLEUM SECTOR PROPOSALS

Trade	Cold Lake Peak Year	Alsands Peak Year	Canstar Peak Year	Total
Boilermakers	503	462	460	1,425
Carpenters	475	437	435	1,347
Cement Workers	69	63	63	195
Electricians	510	468	466	1,444
Insulators	551	506	504	1,561
Iron Workers	565	519	517	1,601
Labourers	806	740	737	2,283
Millwrights	117	108	107	332
Operating Engineers	827	759	756	2,342
Pipefitters	1,523	1,399	1,392	4,314
Pressure "B" Welders	758	696	693	2,147
Sheet Metal Workers	138	127	126	391
Teamsters	48	44	44	136
TOTAL	6,890	6,328	6,300	19,518

Source: Peak Totals from Table A3.2, Appendix 1; proportions from Table 3.7

Calculations by RMC

Note: The figures listed in this table represent only estimated proportions of various trades required during the peak construction year of each project. These should not be construed as estimates of actual demand - they should only be viewed on a relative, comparative basis. The figures indicate that some types of trades will be relatively more in demand that others over the decade, assuming construction of one or more of these projects takes place.

Of all the trades required as a result of the proposed mega-projects, demand for Pipefitters will be the strongest during the construction period. Operating Engineers, Labourers, and Pressure "B" Welders will also enjoy a high demand for their services. Other trades in relatively high demand will include Iron Workers, Insulators, Electricians, Boilermakers and Carpenters. With the exception of most Labourers, all of the previously listed trades are of the skilled variety, requiring specific education, training and experience. (Table 3.8)

RMC

More generally, there will also be a corresponding increase in the manpower demand for project design and management staff related to large industrial construction projects. Additionally, because of the large population increases each mega-project is expected to generate in their respective geographic areas, there will be a significant increase in the demand for highly qualified personnel, such as: doctors, engineers, accountants, teachers, nurses, administrators. This population growth will produce impacts that also extend to a greater demand for secretaries, clerks, small businessmen and others who make up the secondary manpower demand inspired by these projects.

Many of these types of people are already in the study area working on projects under construction. They can be expected to move to one or more of the other projects proposed, depending on timing, to take up the tasks required during construction. Other persons currently resident in the area can be expected to aspire to some of these trades and pursue the educational and training options that will satisfy their interests and capabilities. Their numbers, however, are likely to be small in relation to project manpower demands.

If the proposed mega-projects are terminated or delayed in their construction, skilled tradesmen who complete current projects in the study area may not remain. Instead, they may be attracted to the south-central portion of the province (Red Deer-Edmonton-Fort Saskatchewan) where construction of petrochemical and refinery projects will be underway during much of the decade.

This latter point reflects a key issue: mobility. If northern Albertans are to take advantage of any employment opportunities, construction or operations, whether in the study area or not, they will have to be mobile. If the mega-projects proposed for the study area for the eighties do not materialize as planned, then northern Albertans may have to migrate to the job location, for example to the petrochemical plant projects slated for central Alberta.

Summary Forecast in Mega-Project Requirements

At the time of writing it is decidedly difficult to be overly optimistic over the short term about the fate of the large industrial projects proposed for the study area. It is reasonable and logical, nevertheless, to assess manpower demands inspired by these mega-projects. However, these demand forecasts must be viewed with some trepidation given the uncertainties of the present situation.

RMC

It is exceedingly difficult for educational groups and institutions in the study area to do any short, medium or long range, or even strategic planning related to program requirements, given the amorphous nature of the on-off scheduling of the projects that would produce the manpower demand that these institutions would try, in part, to supply.

On the bright side, however, these institutions are likely to have more time than they may have originally anticipated to carry out their strategic planning. This extra time could usefully be spent on strengthening existing weaknesses, tackling planning gaps in current programming, and at the institutional level, establishing or developing corporate level capabilities to better manage existing resources, and to respond to future demands for programming. These could include the development of adequate information systems, strengthened budgetting processes, planning and control systems, etc.

As well, this extra time could be usefully allocated to developing increased awareness and understanding of the nature of new technologies and systems which will affect the delivery of education in the future.

The bad news, however, is that institutions will continue to have difficulty in deciding what specific program needs to plan for. If at some later date any mega-project again has a glimmer of economic viability, these institutions and groups will still likely be taxed with a short time in which to react.

Immediate Training Needs

Given the prospect that some economic activity in the form of major industrial construction projects in the Petroleum and Petrochemicals sector will persist in the province, if not the Study Area, then there will still be a continuing demand for qualified skilled tradesmen such as: Pressure "B" Welders, Plumbers, Pipefitters, Boilermakers, Electricians, Operating Engineers and Iron Workers. The demand may not be as great as was thought a short while ago, but it is still likely to outstrip Alberta's capability to supply manpower. The same is likely to be true for other highly qualified personnel such as: doctors, engineers, accountants, managers and administrators. Therefore, the province is likely to require in-migrants to fill these vacancies, though perhaps on a diminishing scale.

To focus on the immediate training needs for study area institutions, it is fair to say that for the short term they should not curtail their present activities, but neither should they expand them.

RMC

Five Year Forecast

Even without the prospect of a northern mega-project construction start, economic growth will still continue on a provincial scale, albeit at a lower rate (3 to 4%) than otherwise would be the case. Because the unemployment rate is already very low in Alberta and the participation rate very high, if the projected employment growth is to occur locally, then most of the adjustment will have to take place through increased employment of the rapidly increasing Native population or through an increase in internal migration. This has implications for Adult Education Planners in terms of job readiness skill training and basic lifeskills training, apprenticeship availability, and career counselling.

Ten Year Forecast

It is possible that, within ten years, construction may start on a northern mega-project, likely led by a crown corporation. This, of course, will require the same type of lead time and planning as has been carried out for previous untried proposals. Therefore, planners should have the advantage of some considerable practice in the exercise.

Planners will likely be faced with a changing occupational skills demand related to technological change; for example, computer programmers, operators and technicians, electronics technicians and other highly skilled and specialized persons will be required.

As population increases occur, there will be a corresponding increase in the demand for social services. Social workers, community health workers, nursing assistants, teacher aides, and others will be required to meet the demand.

3.7 OTHER NEEDS

3.7.1 Unions

Unions play a threefold role in the delivery of educational services. First as partners with industry and government, they facilitate the indenturing of apprentices. Second because of their sensitivity to demand for numbers of tradesmen, and their commitment to maintaining a high quality of craftmanship in their trades, they are particularly instrumental in initiating programs. Thirdly, unions participate in the development of curriculum and standards, and in the provision of feedback on the quantity and quality of students trained through the various Trade Advisory Committees appointed by the Apprenticeship and Trade Certification Board (section 2.3).

The President of a major international union confirmed the role of the unions in training noting that:

- Unions are only indirectly involved in training.
- Unions serve on many trades advisory committees.
- Unions will often negotiate training clauses into labour contracts to ensure that workers are able to have access to training for advancement or retraining when necessary.

Unions have sometimes been blamed for putting artificial barriers in the way of Native people seeking employment. While this is not a training issue "per se" a few comments are necessary.

Like many other aspects of modern society a union can be a very intimidating organization for someone from a remote community or someone who has never had the experience of union hiring halls.

By their very nature, unions look after their own first. This does not mean that no one else has a chance of joining a union. Robert Boyden of the Alberta and N.W.T. Building Trades Council made the following comments at a "Workshop on Manpower and Training" held in Bonnyville in June of 1979:

> "The Building Trades Council works with the Minister of Labour to help resolve problems. As well it saves each union from having to separately negotiate with the Minister. Meetings can be arranged at the request of either party".

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> "As for a person getting into a union, if he meets the qualifications trades standards and shows a little aggressiveness, he can qualify to become a union member and work on a project. Unions are not discriminatory, but they do have to depend on the work available. For example, in Syncrude the labour work force was certainly stretched and the membership jealously looked after its own. You just have to keep in contact with the Building Trades Council or the Unions on a regular basis, which means not giving up if you are not accepted on the first visit. Getting into a union often depends on the work available."
>
> "However, this is a massive project. You aren't going to build it with the manpower of one isolated area. It is going to take a lot of communication - and a little give and take". [11]

Besides the communication and a little "give and take", Native persons must receive some basic training to understand the union process and how it works. This could be included in the basic job readiness training prior to applying for a job. Perhaps unions themselves could provide some orientation for potential workers from remote areas.

Speaking at the same workshop a representative of the Construction and General Workers Union, Mr. Jack Dyck [13] strongly urged the initiation of training programs for Natives and referred to a successful program of industrial workers training that had been developed at Syncrude. He also said that the unions hiring practice was hire locals first, Albertans second and then outside of Alberta.

Joint community, union, training institutions and government consultation could ensure that unions are not necessarily a barrier to employment.

3.7.2 Special Needs

The most critical "special need" identified in this study is the need for bridging the major education gap that exists for Natives and the rural poor in remote areas.

Similar problems exist for other "disadvantaged" adults in some of the larger communities, particularly the marginally employed, and physically and mentally handicapped. Several institutions (e.g. Grande Prairie Regional College) provide special Human Development Programs designed for adults requiring preparation in job readiness, life skills and academic upgrading at the 0-9 grade levels. The demand for such programs will likely expand, though remain at a low level.

A different, but comparable focus will continue to be required in the future for English as a second language programs, which assist new immigrants to function in English and to cope with cultural differences in their new land. Should mega-project development induce more in-migration from non-English speaking countries, these courses will have to be expanded.

Special adaptation may also have to occur (for example as currently exists in Toronto School Boards) to cope with the problem of "double semi-literacy" where immigrants from lower socio-economic backgrounds need further language education in their mother tongue, prior to further instruction to learn English, using the mother tongue as a vehicle. Requests for program support to serve such needs are likely to be restricted to major centres in the study area. Experience with such programs may provide special insights into strategies for increasing instructional effectiveness for Native students with similar difficulties.

Societal trends are removing historic barriers in the job market for women, and increasing female participation in the labour force (section 3.2.1). The requirements of women who wish to return to the work force but can only do so through part time education, while directing their primary efforts to their families, are likely to increase. These special needs for women will include increased demands for flexibility in the time that courses are provided, with late afternoon and evening programming close to the home community being critical, as well as other potential support, e.g. day care.

While female participation rates in the labour force are increasing, it is obvious that there is considerable room for further growth. A small but growing need appears to exist for relatively well educated non-working wives, who have migrated north with their families. One of the respondents in the field interviews remarked on the important opportunity for providing enrichment programming (including the graduate level); upgrading to bring individuals up to date in their previous field of study, and education in a new field; or retraining. Fulfilling this need may make the transition from south to north much easier on families and potentially may contribute to increased female participation on the labour force.

RMC

3.8 OBSERVATIONS AND CONCLUSIONS

The basic question of this chapter has been, WHAT WILL WE REQUIRE? The specific needs identified in response to this question are a combination of field work findings, literature views and consultant opinions. As is evident from this chapter these three sources converged closely to identifying similar sets of problems, differing only in emphasis and terminology.

The needs for future action must clearly tie in with the problems of the past if planning gaps between current and desired states of the system of adult education and training are to be bridged. Chapter 2 identifies the weakness in the current delivery system and naturally leads to the important need to STRENGTHEN AREAS OF CURRENT WEAKNESS in the future. Many respondents in the interviews in fact saw future action primarily dealing with improvements to current problems, and accepted this need independent of the potential imperatives of mega-project induced growth.

Future PROGRAMMING needs under NORMAL GROWTH considerations tended to reflect current programming in field interviews. Literature reviews revealed limited specificity regarding the study area needs, but generally did reflect interview experience.

Under normal conditions of growth, the delivery system as a whole will experience the impacts arising from a number of trends which will affect the study area and the province as a whole. These will be the result of anticipated demographic, economic, social, technological and governmental policy trends. The system as a whole will need to ADAPT its programming and delivery to the imperatives of these trends or risk the continued development and delivery of educational and training opportunities that become increasingly irrelevant.

Not only will adaptation to trends be required, but the time frame, the fiscal milieu, and the geographic area over which these adaptations will occur, will require the system to RESPOND in specific ways. Demand for Flexibility, Accountability, Management Effectiveness and the Understanding Application and Exploitation of Distance Learning Technologies, will likely be thrust upon the system in the future, calling for suitable management responses.

Over the ten year period considered it is likely that at least one, perhaps two mega-projects will be developed in the study area. The needs this would generate are in specific programming areas, but would also show up as general pressures on the system to respond quickly and effectively to primary project demands, as well as to deal with substantial increases in secondary demand resulting from project induced population growth.

Accordingly, in answer to the broad questions WHAT WILL WE REQUIRE? five strategic level areas of need are identified for the system.

The Adult Education and Training system in Northern Alberta will NEED:

I TO STRENGTHEN AREAS OF CURRENT WEAKNESS

II TO PROVIDE PROGRAMMING TO MEET NORMAL GROWTH REQUIREMENTS

III TO ADAPT PROGRAMMING AND DELIVERY TO EXPECTED TRENDS

IV TO RESPOND TO SPECIAL DEMANDS/CHALLENGES GENERATED BY FUTURE TRENDS

V TO PROVIDE PROGRAMMING TO MEET MEGA-PROJECT GENERATED DEMANDS

These five categories of need encompass the spectrum of major requirements identified in Chapters 2 and 3. Table 3.9 displays the specific needs organized according to the above categories I-V, and forecasts the degree of need anticipated by the consultants for the ten year planning horizon under consideration. The degree of need is indicated at a relatively low level (no symbol designation), at the medium level (0), or at the major level (X). The period over which a specific area of need will prevail is also indicated in terms of three time frames: in an immediate sense, over a short term period (1981-86), or in the intermediate term (1986-91). The designation of the need level (0 or X) and the comments of Table 3.9 must be understood in the context of the need category being presented (I - V) in each case. Cross comparisons of need levels between categories are not recommended, since need levels are at the indicator level only.

TABLE 3.9

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
I	TO STRENGTHEN CURRENT WEAKNESSES IN THE AREAS OF:				
	System Inputs				
	* K-12 Basic System	X	X	0	A significant concern throughout the study area. Students leaving the Basic System are poorly prepared and need extra help as adults. As population shifts occur, decreasing numbers of 0-14 year olds by 1991 will reduce the problem.
	* Training Allowances	X	X	X	Financial barrier to education and training should not exist. As population shifts to higher adult mix, allowances will become even more important for those seeking retraining.
	* Agency Funding	X	X	X	Requires deeper assessment, and better management and financial systems to identify the depth of the problem. Costs in the north will always be higher on average than in the south.
	* Retention of Qualified Training Staff	X	X	X	Study area will continue to retain only those who truly enjoy the sense of frontier and closer community life in the north. The need for new teachers, health care and social services personnel, will continue, because of out-migration.
	Programming				
	* Native Education	X	X	X	The strongest need as perceived by RMC, demanding early action. The problems range from accessibility to programs, through the provision of culturally sensitive programming to ensure learning effectiveness. Current jurisdictional disputes cannot be permitted to stall initiatives in this area.
	* Local Relevant Programming Particularly Vocational/ Trades Training	0	X	X	While these training needs exist now, they are expected to grow. Local programming increases relevancy and accessibility, but places extra fiscal pressure on the taxpayer.
	- Off Campus Programming	X	X	X	A need resulting from expectations and geography. Could be facilitated in the future by extra funding and Distance Education.
	- Remote Area Facilities	X	X	X	Need related to geography. Development or designation of specific facilities would improve availability of programs. Instructor availability would continue to be problematic but could be helped by Distance Education. Northwest and Northeast corners of the province have fewer resources available than other parts of the study area.

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TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: O - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
I	TO STRENGTHEN CURRENT WEAKNESSES IN THE AREAS OF:				
	Information on Education/ Training Opportunities				
	* Community Awareness	X	X	O	Communication Technologies are likely to facilitate increased awareness and reduce this problem in the future.
	* Career Counselling for Individuals	X	X	X	High priority at all times due to personal needs and changing technologies.
	System Structure				
	* Definition of System Structure and Coordination	X	X	X	Role definition and formulation of adequate management information systems at the agency level and at whole system level would help significantly.
	* Planning and Needs Assessment Capability	X	X	X	
	Supportive Elements				
	* Day Care Centres	X	X	O	An important means of assisting many women to take further education training and retraining. May see decreased demand in the future due to effects of Distance Education, and demographic trends in the study area.
	* Culturally Sensitive Programming	X	X	X	Necessary throughout the decade. Specific to both Native people and new immigrants
	* Development of Socio-Economic Opportunities	X	X	X	A non-educational need in the study area, particularly in small communities. Affects perceived value of education and training programs.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
II	TO PROVIDE PROGRAMMING TO MEET NORMAL GROWTH REQUIREMENTS IN:				
	* Basic Skills/Job Readiness/ Literacy	X	X	X	Major area for need through decade for Native population and new immigrants. Should include curriculum section on unions.
	* Skilled Vocational/Technical Trades	X	X	X	Industrial firefighting/ sawfiling/construction trades/ welders/steam engineers/heavy duty mechanics/process operators/agricultural and oil and gas exploration workers will be required due to continued growth.
	* Human Service Skills	X	X	X	Meat cutters/clerical/cashiers/ bartending/hospitality, etc.
	* Entrepreneurial/Professional service categories	X	X	X	Business management especially for small business ownership/ financial training/health and social service occupations will be necessary due to increased hospital construction
	* University Transfer/Special high cost technology programs	0	0	0	Will receive a moderate level requirement as major university and college resources will necessarily continue to be outside the area.
	* Programs for Women	0	0	0	A newly perceived need likely to grow and provide study area benefits through decreased out-migration and high participation of women in the work force.
	* Special Needs	0	0	0	A continuing need for services for the handicapped, socially and mentally disabled.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
III	TO ADAPT PROGRAMMING AND DELIVERY TO EXPECTED TRENDS IN:				
	Demography				
	* Enrolment Shifts to More Part-time students in Credit/Short Course/Non-credit Programs	0	X	X	Reflects study area changing age structure of adult students due to growth in 25-44 and 65+ group. Decrease in 15-24 group.
	Economy				
	* Labour Shortages in Alberta	X	X	X	Needs for program expansion will exist due to continued robust Alberta economic growth, independent of mega-projects.
	* Shift in Economy to Industrial Growth and Trades/Service/ Finance/Transportation/ Manufacturing		0	X	Women and Natives represent largely untapped human resources for all occupations. Trades/ Service/Finance most likely requirements for study area. Need to adapt programs and delivery to these clients will grow over the decade.
	* Intensified Development of Resource Industry	0	0	X	Current impacts are in place in the study area. The timing of major future impacts depends on external political and economic factors; however, development in this area will continue as a major feature in the north.
	Social Expectations				
	* Pressure for Service Delivery in Outlying areas	0	X	X	People will increasingly expect services closer to home. This need could be met in part by Distance Education Technologies by 1991, but will likely result in an increased demand because of the new availability of offerings these technologies will provide.
	Technology				
	* Demand for Technological Training and Retraining	0	X	X	Continual new technological development is anticipated throughout the decade, affecting job preparation processes, and the need for new knowledge.
	* Specific Growth in the Use of Computers in Industry	0	X	X	After 1986, accelerated demand for literacy with computers will precipitate changes in programming and delivery
	* Development and Application of Interactive Communication Technologies	0	X	X	Significant impact by 1991 anticipated, resulting in rethinking of delivery system strategies and teaching approach. The short term need identified refers to more knowledge at the individual and system level about these technologies.
	* Specific Initiatives affecting Study Area Program Delivery involving:				
	- CML/CAI		0	0	Moderate use may be anticipated for those courses/programs for which this mode is suited. Adaptation will take some time.
	- Interactive communications technology integration in instruction		0	X	Growing impact and use expected.
	- Land and satellite based communications network developments.		0	X	Major impact in study area anticipated by 1991

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: 0 - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
III	TO ADAPT PROGRAMMING AND DELIVERY TO EXPECTED TRENDS IN:				
	Government Policy Initiatives				
	* Industry Based Training		0	X	May be strongly affected by Federal policy funding initiatives currently underway.
	* Fiscal Restraint	0	X	X	Will require adaptation throughout the decade and will depend on economic growth and provincial policy goals.
	* Specific Advanced Education and Manpower Policy Initiatives In Technologies and Trades/ Applied Arts/Program Delivery	0	X	X	Will have major impact within 5 years on new program approvals, swinging the system in the direction of preferred funding.
	* Coordination of Services	0	X	X	Expected to be precipated by government fiscal policies, and facilitated by communications networking.
	* Regionalization of Services (Both specialization of delivery at larger centres and decentralization throughout specific regions)	0	X	X	Will be encouraged and then made necessary by fiscal pressures. Current trends are limited.

TABLE 3.9 (cont)

FORECAST OF NEEDS BY TIME PERIOD

LEGEND: O - Medium Level Need
X - Major Requirement

	NEED	IMMEDIATE REQUIREMENT	SHORT TERM REQUIREMENT (1981-86)	INTERMEDIATE TERM REQUIREMENT (1987-1991)	COMMENTS
IV	TO RESPOND TO SPECIAL DEMANDS/ CHALLENGES GENERATED BY FUTURE TRENDS, AT AGENCY AND SYSTEM LEVEL:				
	* Flexibility	O	X	X	The need to respond to these demands will increase throughout the system and affect programming delivery mechanisms, planning capability and funding and resource allocation.
	* Accountability	O	X	X	
	* Management Effectiveness	O	X	X	
	* Understanding, Applying and Exploitating Distance Education Technologies	X	X	X	A special challenge offering a compelling promise of increasing accessibility, but carrying with it a need to understand the significant differences between regular instruction and approaches using DET modes.
V	TO PROVIDE PROGRAMMING TO MEET MEGA-PROJECT GENERATED DEMAND FOR:	----	Depends on Political and Economic Considerations	----	Could be required on short notice in some categories.
	* Skilled trades		O	X	Highest Priority: Pipefitters/ Operating Engineers, Labourers/ Pressure "B" Welders Next Priority: Iron Workers/ Insulators/Electricians/ Boiler Makers/Carpenters
	* Project specific professional manpower		O	X	Project design and management staff/engineers/accountants etc.
	* Trained Manpower associated with Secondary Demand		O	X	Engineers/Physicians/Teachers Lawyers, plus increased demand in all areas, including programming for special needs of handicapped, immigrants, others, generated by mega-project induced population growth.

An additional, need generated by mega project development will be system reponse capability to mobilize and deploy resources effectively, efficiently, and in a timely way, to meet primary project needs, while at the same time coping with the increased effects of secondary demand, both in a compressed time period.

NOTES TO CHAPTER 3

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3. Ministry of Education, Province of British Columbia. Report of the Distance Education Planning Group on a Delivery System for Distance Education in British Columbia. March, 1978. (p.1)

4. Ibid. (p.4)

5. Bent, Dale H. "Computers and Education - The Challenge for the 80's", Computer Data Part I February 1981, Vol.6, No.2. pg. 40-43; Part II March 1981, Vol. 6, No.3. pg. 39-41; Part III April 1981, Vol. 6, No.4, pg. 42-43.

6. Selections from Edmonton Journal, May 23, 1981, p.10 presenting a weekend feature on Videotex: "Battlelines are Drawn; Let the Competition Begin"' Television is Never Going to be the Same"; "Videotex:. Information Reaches Out".

7. Chadwick, Clifton B. Educational Technology, "Why Educational Technology is Failing, (and what Should be Done to Create Success)". January 1979, pg. 7-19.

8. Northwestern Regional Economic Development Council, Agriculture in I.D. 23, June 1981.

9. Alberta Advanced Education and Manpower Planning Secretariat. Demographic and Manpower Trends in Alberta: Possible Impact on the Advanced Education System, 1971-1988, p.6.

10. Esso Resources Limited, Cold Lake Project Training Plan Final Environmental Impact Statement. October, 1979.

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CHAPTER 4: TOWARDS THE FUTURE: CONSULTANTS RECOMMENDATIONS

4.1 OVERVIEW

The purpose of this chapter is to propose HOW to respond to the needs outlined in the previous chapters. It begins with a discussion of the critical ELEMENTS for Strategic Planning, including: a restatement, in order of priority as perceived by the consultants, of the future needs for adult education and training; a summary of the key strengths and weaknesses of the system; constraints and opportunities for future development; special problems; and relevant data documentation. This discussion of the present system of adult education and training is followed by a section describing the desired future for the system, including WHO the system is to serve, with what AIMS and toward what GOALS.

Section 4.4 then presents a series of strategies to answer the question of BY WHAT MEANS can the gap between the current and desired system be bridged. Three broad strategies are proposed, reflecting varying degrees of decentralized versus centralized control. One general strategy is recommended and forms the basis for more specific implementations strategies at two levels: Overall System Strategies and Specific Programming Strategies, indicating for each what needs to be done and who should take responsibility for it. In total, some twenty five strategies are proposed, followed by Observations and Conclusions.

4.2 STRATEGIC PLANNING ELEMENTS

The methodological focus of this study has been Strategic Planning, a process which emphasizes understanding of system wide issues, needs, and performance in order to establish future aims and goals and the general means by which these can be approached. This subsection briefly recaps the findings of the study to this point, in relation to six main elements of the planning model presented in Chapter 1, Figure 2 (facing p.12). These elements are: future needs; strengths and weaknesses; opportunities and constraints; special problems; and data base and relative standing. The purpose of the recap is to help build an understanding of the planning gap between the current Adult Education and Training System, and the desired system, whose prime purpose will be to meet future needs.

Future Needs

Future adult education and training needs have been summarized in Chapter 3, Table 3.9. The needs were grouped into five categories, which are now restated in order of priority, as perceived by the consultants.

Table 4.1

NEEDS PRIORITIES

PRIORITY LEVEL	NEED	COMMENT
1	PROVIDE PROGRAMMING TO MEET NORMAL GROWTH REQUIREMENTS: * Basic Skills/Job Readiness/Literacy * Skilled Vocational/ Technical Trades * Human Service Skills * Entrepreneurial/ Professional/service categories * University Transfer/ Special high cost technology programs * Programs for Women * Special Needs	Need Category II, Table 3.9 specifies WHAT should be done. Programs to be developed are listed according to priority RMC suggested.

Table 4.1 (cont)

NEEDS PRIORITIES

PRIORITY LEVEL	NEED	COMMENT
2	STRENGTHEN AREAS OF CURRENT WEAKNESS: (pp 118-119)	Need category I, Table 3.9 specifies WHAT should be done. Priorities within this category follow in Table 4.2
3	PROVIDE PROGRAMMING TO MEET MEGA-PROJECT GENERATED DEMANDS: * Skilled Trades * Project specific professional manpower * Trained Manpower associated with Secondary Demand	Need category specifies WHAT should be done. Priorities within this category are listed in order
Ongoing	ADAPT TO FUTURE TRENDS (pp 121- 122)	These two categories specify HOW the system is to respond rather than WHAT is to be done.
Ongoing	RESPOND TO SPECIAL DEMANDS GENERATED BY TRENDS (p 123)	

The relative priorities presented reflect a basic RMC judgement that the first imperative of the system is to continue to provide service: it is neither so faulty, nor is the demand for its future service so weak, that the system should consider diverting its energies primarily to significant redevelopment of its operations and structure.

RMC

Notwithstanding this judgement, the second priority, strengthening current areas of weakness is important, and runs a close second: the problems in the system must be addressed, and energies should be devoted to this purpose. The third level priority could easily shift to level 2 if a sudden start was required for one or two mega-projects. In this case the question of strengthening the system as well as providing the services for mega-project needs should be given equal priority, requiring simultaneous action.

Current System Strengths and Weaknesses

The results of Chapter 2 led the consultants to conclude that in the face of geographic, cultural and small community economic realities the strengths of the system are:

* AVAILABILITY of a broad range of services and programs throughout the study area.

* SUCCESSFUL preparation of students for the job market, according to employer comments.

* PUBLIC PARTICIPATION in program development and monitoring through the involvement of individuals, often with special expertise from outside the system on advisory and governing bodies.

* FUNDING commitments at levels higher than provincial averages by the province through Alberta Advanced Education and Manpower.

* HUMAN RESOURCE capacity of the north, in terms of community strengths, and interest on the part of residents in making the study area more habitable by having services in all areas available locally.

The weaknesses of the system are documented in Chapter 2 as well, and are summarized in section I of Table 3.9 in Chapter 3. These are restated here for convenience, in order of priority, based on the professional opinion of RMC. Note that priorities noted in Table 4.2 are within the need category "Strengthen Area of Current Weakness". Relative priorities between categories are found in Table 4.1

Table 4.2

PRIORITIES FOR STRENGTHENING AREAS OF WEAKNESS

PRIORITY LEVEL	NEED (Ref. Table 3.9 part I)
1	Programming in the area of Native Education
	Local relevant programming especially Vocational/Trades Training
	Off Campus Programming. Remote Area facilities in Northwest and Northeast
2	Information on Education/Training opportunities at the community and individual counselling levels.
3	Supportive elements, particularly development of culturally sensitive approaches to training Native people, and concurrent efforts to increase job opportunities in small communities.
	Day Care Centres to encourage more participation by women, student housing.
4	The major problem requiring long term action is improvement of the outputs of the K-12 basic system.
	Training allowances.
	Retention of qualified staff.
	Agency funding.
5	System structure requires definition development and coordination, and establishment and/or enhancement of planning and needs assessment capabilities.

Opportunities and Constraints

The difference between opportunities and constraints is often a matter of perspective, usually representing a challenge for creative action. Constraints are understood as contextual factors that affect the development of adult education and training in the study area. The primary constraints and their corresponding opportunities discussed in Chapter 2, and referred to in Chapter 1 are:

TABLE 4.3

CONSTRAINTS AND OPPORTUNITIES

CONSTRAINTS	OPPORTUNITIES FOR DEVELOPMENT
GEOGRAPHY	Delivery system development, especially Distance Education Technologies and techniques to increase accessibility.
ECONOMICS OF SMALL COMMUNITIES	Programming which concentrates on cottage industries reflecting local talents, (crafts, arts, farming etc.): small business development and management, agricultural workers, etc.
CULTURAL BARRIERS	Cross cultural programming to help tap the vast source of human potential and underutilized labour resources represented by Natives which would help reduce future labour shortages.
LIMITED PREDICTABILITY OF TIMING OF MAJOR ECONOMIC DEVELOPMENT	Current indications are that mega-projects development is not imminent. This creates a special opportunity for building up planning and management capability, and learning about Distance Education, to better respond to short and intermediate term needs, including the capacity to quickly respond to mega-project requirements, should they arise.
JURISDICTIONAL FACTORS AFFECTING NATIVE EDUCATION	Initiatives involving goodwill between provincial and federal governments, special incentive and matching grant programs involving Natives, the provincial government, educational agencies and employers.

Special Problems

The special problems of the system are to adequately provide education and training to Natives and to respond to mega-project induced growth at such time as one or more of the proposed projects in the area proceeds. A special externally generated problem is associated with the extra efforts required by the system to upgrade adults inadequately prepared for further education by the K-12 basic system.

Data Base and Relative Standing

Two other items remain in this recap of study elements for strategic planning: Data Base and Relative Standing documentation. Details are presented in Chapter 2 (particularly Section 2.4.2) and the appendices.

In summary, a large number of courses/programs are available to serve clients in the area, which has 10 percent of the population of Alberta, yet 40 percent of its public colleges and 50 percent of its Vocational Centres. Excluding the two Institutes of Technology in Edmonton and Calgary (NAIT and SAIT), 42 percent of all funds for provincially administered institutions were spent in the study area, which has only 28 percent of the student registrations for provincially administered institutions, again excluding NAIT and SAIT (1979-80).

When only public colleges are considered, 31 percent of all operating funds went to the study area, although FTE enrolment accounted for only 15 percent of the total in the same year. Cost per full time equivalent are substantially higher for study area colleges than others, ranging for $6,000 to $13,000 per FTE compared to other colleges outside the area at around $4,000 per FTE. The cost differences are attributable to distance, climate, type of programming, as well as scale of operation factors.

4.3 THE DESIRED SYSTEM

The previous section summarized the main elements characterizing the present system of adult education and training and its future needs. In doing so a partial picture of the planning gap was formulated. This gap must be bridged by appropriate action strategies and plans to ensure that the desired state of adult education and training is achieved. What remains, however, before addressing the means by which the gap will be bridged, is a clearer picture of the other side of the gap: who is the the system to serve, with what aims and toward what goals?

4.3.1 WHO IS TO BE SERVED: The Client Population

The population to be served will continue to be in the 15-65+ age group, with emphasis shifting to the 25-44 category. Needs for educational and training services and the means to achieve them cannot be homogeneous due to the diversity in the client population and its socio-economic context. The population and its context range over the following spectrum: rural; rural remote; small to intermediate urban; agricultural; primary resource based; primary manufacturing.

Cultural distinctions make it appropriate to at least recognize three distinct, if occasionally overlapping, peoples: Native Indians (this group may in turn, for certain particular needs be seen as distinct i.e. Cree, Chipewyan, Dene, etc.), Metis and non-Natives. Each of these identities will to some degree, affect any educational/training development in northern Alberta.

The greatest need for training is among the clients of the northern Alberta population commonly referred to as the disadvantaged. Although this term is often used as a thinly disguised reference to Native Albertans the term should not be ethnocentric. It should be seen to include the rural poor of the remote communities as well as the urban poor of larger communities such as Fort McMurray and Grande Prairie. It appears that this group likely has the lowest participation rates in the adult education system, making the rate for the study area roughly half that for Alberta as a whole. (Table 2.4 in Chapter 2 and Tables A2.4 and A2.5 in Appendix 1).

The disadvantaged form a heterogenous group particularly well characterized by S.V. Butterworth, who described the closed circle for certain individuals in New Zealand who have occupational levels and income similar to the disadvantaged of northern Alberta:

> "Poor health in a community is a result of poor diet and poor housing; both of these reflect low standards of living, which come about because incomes are low. Incomes can be raised by steady employment, which is possible nowadays only to those whose education, in the broad sense, has been adequate. But people with low incomes cannot give their children adequate education; the children cannot enter the "progressive" employment which will give them the income to raise their standards of living. So poor diet and poor housing remain; the circle is complete".[1]

While the system of education/training must respond to the special needs of the disadvantaged, their educational needs will only be served if steps taken to improve education/training in northern Alberta are also associated with action which seeks to break the circle of despair and poverty for as many disadvantaged clients as possible. Within this context of larger social action, the education and training delivery system must continue its focus on individual people rather than stereotyped groups. This is the only focus that will sharpen delivery approaches to make them responsive to true needs.

The client population for adult education and training in northern Alberta comprises more than the disadvantaged. Many northerners are not disadvantaged and can take, and will continue to take, advantage of the present traditional programs at private schools, in industry, community colleges, technical schools and universities. Others do not consider themselves disadvantaged just because they do not take the opportunity to obtain a formal, institutionally based education beyond a certain level. Depending on the cultural context, to choose to allocate time to learning heritage-based life skills rather than attending formal schools makes considerable sense, particularly if those skills are relevant, for example, to a lifestyle which includes cyclic migration and traditional hunting and fishing as its prime characteristic.

While this report continually reinforces the question of developing a system that avoids ignoring the disadvantaged, the study is very much aware that these are not the only potential or active participants in the system. System goals, definition, structure and delivery approaches must accommodate all clients.

Provision of effective adult education and training services to northerners represents a significant investment in the present and coming generations of northern Albertans. This investment is mandatory if the people of the north are to have increasing participation in the Alberta economy and control of their lives. Without this investment in education/training it is likely that many northern Albertans will be left behind in an unskilled labour pool for which there could be a decreasing demand. Alberta's future depends on the development of a resourceful, adaptable, and most important, a skilled labour force.

4.3.2 TO WHAT PURPOSE AND TOWARDS WHICH DIRECTION: Preliminary System Aims and Goals

The desired characteristics of the future system of delivery of Adult Education and Training in Northern Alberta naturally follow from the nature of the client population to be served, the needs analysis, and other strategic issues described earlier.

The desired system should be FUNCTIONAL, providing programming for normal growth and mega-project growth, as it arises. It should be ADAPTIVE in its structure and delivery, to reflect general trends; and it should be RESPONSIVE to anticipated demands for flexibility and accountability (particularly in view of its heterogeneous client mix and the socio-economic circumstance of the area), management effectiveness, and the understanding and use of distance education technologies. To achieve these characteristics, and to serve its clients in a systematic way, the system must also be GOAL DIRECTED, seeking improvements to current delivery, identifying new needs, and planning for ways to meet them.

While these general characteristics assist in interpreting the nature of the future system, the other side of the planning gap requires a closer characterization in terms of the system's major purpose or mission and its intended approaches to fulfilling that purpose. These are respectively the aims and goals of the system. The preliminary structure of aims and goals presented in this section arise out of the strategic elements of the previous section and reflect the consultants' views. The statements presented could act as a starting point for further consultation with stakeholders and participants in the system in order to build commonality, and understanding of the purpose and direction for this system.

System Aim

The basic aim of the system of providers and funding agencies delivery of Adult Education and Training in Northern Alberta is:

TO PROVIDE HIGH QUALITY, EFFECTIVE, EMPLOYMENT ORIENTED EDUCATION AND TRAINING SERVICES TO MEET NEEDS OF ADULTS IN NORTHERN ALBERTA, WITH AVAILABILITY AND ACCESSIBILITY OF SUCH SERVICES COMPARABLE THROUGHOUT THE AREA, AND COMPARABLE TO OTHER PARTS OF THE PROVINCE.

The essential features covered by an aims statment of this type should include a service commitment to the educational needs of adults, an employment orientation, and the notions of comparable access to and availability of services. This latter factor addresses the issue of equality of opportunity, commonly accepted in many major socio-economic programs.*

* The Downey report on adult education in the Peace, for example, presents a brief but useful discussion on this issue.

Goals

If a statement of AIM specifies purpose for the system, GOAL statements characterize the service intentions of the desired system. These goals are, again, preliminary and are intended to be used as a starting point for consultation with stakeholders in the system. The statement of each goal is followed by a comment on its relevancy to current and future needs, existing strengths and weaknesses, special problems and other strategic planning elements, as appropriate. A summary of the proposed system goal structure is displayed in Table 4.4 prior to a detailed presentation.

TABLE 4.4

PROPOSED AETNA SYSTEM GOAL STRUCTURE

SYSTEM AIM	TO PROVIDE HIGH QUALITY, EFFECTIVE, EMPLOYMENT ORIENTED EDUCATION AND TRAINING SERVICES TO MEET THE NEEDS OF ADULTS IN NORTHERN ALBERTA, WITH AVAILABILITY AND ACCESSIBILITY OF SUCH SERVICES COMPARABLE THROUGHOUT THE AREA, AND COMPARABLE TO OTHER PARTS OF THE PROVINCE.
GOAL 1	Northern Participation
GOAL 2	Sector Coordination and Involvement
GOAL 3	Assurance of Basic Level of Education
GOAL 4	Relevancy of Programming
GOAL 5	Cultural Sensitivity
GOAL 6	Communication of Information on Education and Training Opportunities
GOAL 7	Adequate Resource Allocation and Development
GOAL 8	System Development, Coordination and Planning
GOAL 9	Implementation to Meet Identified Needs

GOAL 1 — Northern Participation

Northern Albertans must have a significant role in the definition of their training, employment and education needs and in determining the means to meet these needs.

This goal implicitly suggests that programs for northerners be run by northerners, but is not intended to reflect program autonomy from the rest of the province.

Comments: This goal is key to addressing weaknesses identified in Native education, locally relevant programming, provision of supportive elements, and enhancing the current system strength of public participation. The goal will help to ensure that delivery responses to local and area wide trends are truly flexible and accountable to residents of the north. The special relevancy of this goal to Native education is its relation to the significant, culturally based "consultation process" used by Natives to evolve understanding and agreement on issues. The goal of Northern Participation includes the concept of consultation. This goal will facilitate the development of mechanisms which assure practicality of programming at the local level, monitoring of effectiveness and efficiency of service delivery at all levels of the system, including assessment of the realism of requests for locating service sites where costs and human resources are scarce.

GOAL 2 — Sector Coordination and Involvement

Four sectors: government, educational institutions, industry, and local communities are to have a meaningful involvement and authority in the planning and delivery of training and education.

To best serve the basic aim of the system these four major parties must have a stake in the delivery of services. This goal requires the development of a better sense of "partnership" among the four sectors, with each making contributions to system structure and delivery according to their respective needs and general roles in society.

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Comments: A closer working relationship through a meaningful "partnership" would encourage system effectiveness, ensuring adequate, relevant, and timely training for real job markets. This goal would also help the system meet the need of adapting to future trends, particularly if industry based training becomes more common. Since technological trends are likely to arise out of changes in industry, its role in the partnership would be invaluable for helping maintain relevancy of programming for both normal growth and particularly mega-project induced growth if it arises. Similar benefits would accrue from effective involvement and coordination of government, institutions, and local communities, particularly in responding adequately to local needs and realities, as well as to larger economic trends. Government in particular would benefit by gaining information for developing policy initiatives which are particularly sensitive to local needs and opportunities.

GOAL 3 Assurance of a Basic Level of Education

A basic level of education (understood generally as being at the Grade 10 level) must, whenever possible, be available to adults in the home community. Since the current K-12 Basic System is experiencing difficulties in preparing students for entry into the adult system, the future AETNA must continue to allocate resources and efforts to this end, and expand, adapt and develop concurrent programs for special target groups.

Comments: This goal addresses a major weakness in the system, requiring specific action. The goal encompasses Basic Skills and Literacy programs as well as Job Readiness and Life Skills for disadvantaged adults including Natives, new immigrants and others.

GOAL 4 Relevancy of Programming

Vocational education and training options should be relevant, in the first instance, to employment and/or economic opportunities in the home community and the north, and only secondly to the province or the country as a whole.

Comment: This goal is directly related to the two major need categories of Providing Programming for Normal and potentially Mega-project Induced Growth.

The goal is to be interpreted to include programming especially relevant to specific client groups, Natives being one. AETNA has a potential role in facilitating and/or providing educational services in the areas such as wildlife management, art and crafts, small business and industry development etc., as well as skilled vocational/technical trades, human service skills, entrepreneurial and professional service areas etc.

GOAL 5 Cultural Sensitivity

Education and training approaches should be sufficiently flexible and innovative to accommodate the cultural differences of clients in the region, and be sufficiently broad so that people need not leave the study area to take their training.

Delivery and content of programming are implicitly expected to be adjusted to accommodate these needs, leaving output standards at relevant but acceptably high levels.

Comments: While this goal primarily reflects the special needs of Natives, it is also relevant to encouraging the development of system capability to recognize and respond to the needs and opportunities for service to other clients not currently well served, or participating at low rates. Women, for example, form another client group whose needs require delineation and for whom special support mechanisms or alternative delivery approaches may be required to facilitate higher participation. Other target groups are immigrants whose cultural and/or linguistic heritage is not English, the disabled and others who require special emphasis on "cultural" issues.

GOAL 6 Communication of Information on Educational and Training Opportunities

Northerners are to be provided with current and accurate information which links education opportunities with employment opportunities, and includes the means by which these opportunities can be accessed.

Comments: This goal responds to a specific weakness in the current system, reflected at community levels and in individual needs for career counselling.

GOAL 7 Adequate Resource Allocation and Development

The system should continually reassess funding formulae mechanisms and rates which affect service delivery by agencies, and the accessibility of individuals (training allowances), to ensure their relevancy to the area. In addition the system should develop means to acquire and retain high quality teaching and administrative staff for the system.

Comments: The development and maintenance of human and physical capital must be a goal of the system if it is to serve well. This goal would particularly address the need to strengthen a specific set of weaknesses in the current system.

GOAL 8 System Development, Coordination and Planning

The system should direct attention, energies and resources to its own structural and communications needs. Improved definition of relative roles and purposes among the deliverers should be developed. Coordinating mechanisms to facilitate communication on the availability of resources and their efficient matching to needs; the development of a needs assessment and planning orientation and capability; and a general emphasis on management effectiveness at agency and system wide levels, should be specifically encouraged.

Comments: This goal responds to an identified weakness in the current system and directs efforts to its resolution. The particular importance of this goal is that it contributes to the growth of system definition and identity, which should lead to greater effectiveness for future operations.

Development of system structure must be carefully monitored to assure a relevant, service, and people orientation, as implicitly required by the other goals presented in this section.

Matching of resources with needs is not to be understood as having all resources locally. While the aim of the system is to ensure levels of accessibility comparable to the south and throughout the study area, a system which knows what is available, what the needs are, and communicates its knowledge to individuals can also refer people outside the area as necessary, as well as direct its attention to new modes of delivery to achieve this aim, e.g. Distance Education.

GOAL 9 Implementation to meet Identified Needs

The system should develop strategies and action plans to meet the specific identified needs summarized in Table 3.9.

Comments: This goal reaffirms the basic aim of the system to meet needs effectively and directs the system to specific action.

The proposed goals help develop a sense of direction and cohesiveness for the system of Adult Education and Training in Northern Alberta. They are open ended and sufficiently flexible not only to cover identified needs, but also to accommodate new ones. A clear relationship exists between these goals and the specific needs identified in Table 3.9, thereby linking system directions with the resolution of current problems and future requirements.

4.4 THE MEANS: Alternative Strategies

The previous sections conclude a characterization of both sides of the planning gap between the current and desired system, with the goal structure of Section 4.3 defining directions towards which the system should evolve. The major question for this section is BY WHAT MEANS? i.e. what strategies are required to bridge the planning gap.

Three generic strategies are possible:

1. ASSISTED EVOLUTION, or natural evolution supported by selected action on specific needs as identified in Table 3.9 as may appear appropriate in view of delivery agencies and Alberta Advanced Education and Manpower.

2. MODERATE INTERVENTION, involving selected action focussed on system structure, as well as more systematic action on needs, by various participants in the system according to better define responsibilities for planning, delivery and funding.

3. SIGNIFICANT INTERVENTION, requiring major system restructuring and development, together with directed, systematic action in each specific area of need, in order to move the system to the desired future state.

The critical dimension in these strategies lies in the degree of emphasis to be applied to system definition and structure, i.e. degree of system management control or centralization. The correspondence between these three generic approaches and the degree of centralization, may be displayed as follows:

1. ASSISTED EVOLUTION --- Decentralized System Control.

2. MODERATED INTERVENTION --- Mixed System Control, Centralized/Decentralized Structure.

3. SIGNIFICANT INTERVENTION --- Centralization system control through a single department of AETNA.

4.4.1 ASSISTED EVOLUTION: Decentralized Control

This alternative approach for moving the current system to a desired status recognizes the fact that the system is working relatively well, and consequently assumes that fine tuning is all that is required to address the range of needs identified in this report. Responsibility for addressing individual needs could be picked up by specific institutions, as appears relevant to their circumstance, with some guidance from the "visible hand" of Advanced Education and Manpower. The publication of this report, for example, would be expected to generate sufficient corrective and planning action, although special initiatives could be taken to increase resource allocation and attention to special problem areas, such as Native Education, K-12 Basic System effectiveness, and as the need arises, mobilizing resources and programming to meet mega-project needs.

The primary advantage of this approach is that it is the least disruptive alternative. This alternative permits the development of focussed initiatives to tackle problems, and likely would require the fewest additional resources. In a period of time when mega-project development seems much less likely than distributed smaller scale development, this alternative seems attractive.

Disadvantages, of course, also exist. There is some doubt whether this approach could effectively address all aspects of the need to Strengthen Areas of Current Weaknesses, for example, Native Education, Funding and Coordination issues to name a few. There also appears to be little incentive to do so, in the face of day-to-day operational imperatives. While Programming to meet Normal Growth Needs will likely continue without a greater degree of coordination, the likelihood is high for engaging in competitive efforts for the same small, dispersed population in certain areas. This can lead to unnecessary duplication, less than optimum availability of programs and services, and possibly affect quality of programming.

Without special intervention, there appears little chance that the system would naturally respond to the programming requirements of mega-project induced growth or effectively adapt and respond to anticipated trends. The intervention required would have to come specifically from the primary "coordinating" agency in existence, Alberta Advanced Education and Manpower, and would have to cover a major number of areas. De facto, this alternative would disappear in the face of the centralization and directed action which Advanced Education and Manpower would have to undertake.

4.4.2 MODERATE INTERVENTION: A Mixed Strategy of Centralization/ Decentralization

A mixed approach to system development and control would call for a more explicit delineation of planning, delivery and funding responsibilities between agencies which deliver services and the government, thus dealing with system structure; as well as a more systematic attack on the problems and needs of Table 3.9. This alternative would consciously seek means to create a sense of shared control in the system among its major players.

The question, of course, is what constitutes "moderate" intervention. If the needs and goals identified for Adult Education and Training in Northern Alberta are to be met, it is the consultants' opinion that stronger action than the "fine tuning" represented by the ASSISTED EVOLUTION alternative will be required. Otherwise, the very scope and scale of problems such as Native education, which are impossible for any one component of Adult Education and Training in Northern Alberta to resolve, will likely cause the current system to avoid action, thereby ignoring the real needs. Accordingly, more aggressive and systematic efforts involving specified responsibilities would appear necessary to deal with the larger issues.

The advantages of this alternative will lie in its more concerted effort of addressing problems than the previous option; its increased commitment to dealing with system structure issues, such as coordination, needs assessment and planning; and in the specific strategies that may be chosen to initiate action. Additionally, this alternative would limit disruption to delivery agencies in the current system, affecting only those whose service delivery functions tend to relate them significantly to major areas of weakness or need identified earlier.

The major disadvantage of this alternative would necessarily be the possibility that "moderate" intervention would truly be insufficient to adequately bridge the planning gap between the current and desired state of the system.

4.4.3 SIGNIFICANT INTERVENTION: Centralization Through a Department of Adult Education and Training for Northern Alberta

Significant intervention, in the form of centralized control through a single Department of Adult Education and Training for Northern Alberta provides interesting opportunities and strong advantages. This alternative for moving the system from the current to the desired state would be the most likely to successfully initiate systematic action on the various needs identifed. A unified, singular approach, specifically mandated to meet needs of northerners would have its energies and efforts focussed, and would less likely be diverted to other issues and concerns. The aim and goals for the desired system presented in section 4.3.2 could be its main focus, ensuring that all issues, needs and problems are adequately tackled.

RMC

System definition and cohesion would evolve more quickly because of the clearly identifiable source of coordination and funding authority. The system would truly be "run for northerners by northerners".

Other advantages of using a centralized means to initiate major action could also accrue to the system: increased understanding of issues, quicker response to real problems, enhanced system responsibility and accountability, greater capability to effectively interface with other entities with complementary interests (e.g. ACCESS) etc.

This alternative would, however, present a range of disadvantages. It would represent the greatest structural change to the current system, and as such, would encounter the greatest degree of inertia. Formation of a Department of Adult Education and Training in Northern Alberta would represent a major administrative effort, requiring significant resources, possible legislative changes, and most critically, at least two years to initiate from consideration of the idea by Cabinet to the time its doors opened, presumably on a site in Northern Alberta.

While its focus on northern issues would be of benefit to northerners, a serious question would have to be considered: fragmentation of the province-wide mandate of Advanced Education and Manpower. While the capabilities of centralized systems to initiate action are relatively well accepted, their long term success in continuing to deliver service and to respond to local needs is somewhat less promising. Centralization of control could tend to limit responsiveness preferentially to Departmental rather than system wide goals, concentrating power and authority unduly.

Finally, this alternative would likely have little else than focussed attention and effort to offer to the system over other alternatives. While this may be of significant benefit to northerners, it is possible that effective system development could be accomplished with less centralization, and with a smaller degree of effort.

4.4.4 Recommended General Strategy

Of the general strategies posed, RMC recommends MODERATE INTERVENTION, involving Mixed System Control, with a more explicit delineation of management and funding responsibilities between agencies which deliver service and the government, as well as a commitment to initiate system structure and development, and to address major needs identified.

The positive reasons for the recommendation lie in the observation that the system is doing relatively well, and that a partial respite from demands for "instant" action appears to have developed as a result of the cancelling of the Alsands project. On the negative side, it is the consultants' opinion that leaving the system as is holds little promise for serious resolution of needs; and while embarking on major intervention to form a centralized department shows promise, it has limited hope for attainment in the face of countervailing pressures and ultimately, too little extra potential advantage for the efforts required.

4.5 OVERALL SYSTEM STRATEGIES

The previous section recommended a Moderate Intervention Strategy, involving mixed centralization/decentralization and control, in order to bridge the gap between existing and desired states of the system of adult education and training in northern Alberta. This section elaborates a set of strategies for achieving this end within the general context recommended in section 4.4.4.

4.5.1 Overall System Strategies

In view of the relative effectiveness of the existing system, and the partial respite presented by the deferral and/or cancellation of mega-projects in the study area. Strategies recommended for the period 1981-1986 are:

STRATEGY 1	Concentrate primary system efforts on current programming using existing system structures and resources, and direct future effort to providing programming to meet normal growth needs according to priorities of Table 4.1
Primary Responsibility for Action	Advanced Education and Manpower and all delivery agents in the system.
STRATEGY 2	Direct existing system energies and efforts to improving systems performance by strengthening areas of weakness according to priorities in Table 4.2

Primary Responsibility for Action	Advanced Education and Manpower, and all delivery agents in the system.
STRATEGY 3	Take advantage of the opportunity, presented by a decreased pressure for responding to mega-project generated needs, to build up capability and understanding regarding: * Management Systems including information systems, financial and accounting systems, accountability mechanisms. * Planning and Needs analysis capability. * Distance Education technologies, their characteristics, limitations, and effective use.
Primary Responsibility for Action	Advanced Education and Manpower, and all delivery agents in the system, especially by corporate agents and colleges.

The structural changes that could be initiated at an early stage should relate to priority areas requiring strengthening of current weaknesses. Native education and relevant local programming are key areas of need. The strategies proposed to respond to these special needs deal with the following issues Clarifying Jurisdictions; General Role and Responsibility Definition; Local Governance; Regionalization; and developing a Consortium for Native Education. These are discussed in turn:

Clarification of Jurisdictions

There are three types of jurisdictional issues in northern Alberta: those associated with Native education; service boundaries for institutions; and federal/provincial issues regarding payment of training funds to provinces and directly to industry.

Native Educational Training has been identified as a major problem and must be resolved quickly by the Federal and Provincial Governments if further waste of human potential is to be avoided. Should the mega-projects proceed, ironically the Native population will be the most important potential source of labour, short of massive in-migration. Training and education for this important resource should be initiated immediately, independent of prospects for the mega-projects.

The second jurisdictional problem exists as a result of the inability of competition in the education market to delineate service boundaries for individual institutions. The reluctance of Advanced Education and Manpower to clearly fix geographic boundaries defining principal catchment areas for post-secondary institutions in northern Alberta, analogous for example, to hospitals, constitutes a major problem. Boundary disputes have existed between Lakeland College and AVC Lac La Biche, as well as among Grande Prairie College, Fairview College, and AVC Grouard. Problems arise due to public confusion as to which institution is responsible in a particular area. Institutional rivalry is also counter-productive in sparsely populated areas.

The third jurisdictional problem is related to the Federal Government's declared intention to cut training funds being paid to the provinces through post-secondary education cost sharing schemes. In addition, the Federal Government has indicated its interest in providing funds for training directly to industry. Both actions would have major repercussions in Alberta and would be considered as serious challenges to provincial jurisdiction over education. Further, without adequate controls, the likelihood exists that funds provided directly to industry may not find their way into training which would serve individuals with the greatest needs.

STRATEGY 4

Policy liaison and initiatives be initiated, with the intent of maximizing Native peoples' access to funding and authority over education and training on reserves for adults, and to facilitate access to existing programs in the north by individual students. These initiatives should explore and achieve definitive action commitments involving:

* Relevant job opportunities and related educational needs.

* Cooperative efforts to facilitate access and delivery between Native Albertans, Federal and Provincial Governments, local industry, relevant local delivery agencies, Distance Education agencies.

* Financial incentives, including matching grants, to employers sponsoring the education of Native students, and to individual institutions if appropriate.

* Associated job creation opportunities to ensure students make use of their education.

Primary Responsibility for Action

Advanced Education and Manpower, in consultation with Native representatives.

STRATEGY 5

Develop specific geographic boundaries identifying primary catchment areas for individual adult education and training institutions. These should reflect existing use and natural trading patterns of local areas.

The purpose of these boundaries would be to establish primary jurisdictions for program development, recognizing that certain expensive programs may serve more than one area, and duplication in neighbouring areas for certain programs may be appropriate.

Primary Responsibility for Action

Alberta Advanced Education and Manpower in consultation with the institutional sector.

STRATEGY 6

Establish a task force to explore the potential of providing federal or provincial grants for training directly to industry, given the perspective of the needs and interests of northern Albertans.

Primary Responsibility for Action

Alberta Advanced Education and Manpower jointly with industry and Native representation.

General Role and Responsibility Definition

Figure 4.1 illustrates the many components of Advanced Education and Training in Northern Alberta. The roles of individual agencies and institutions are primarily to deliver services, and in doing so to effectively manage their operations. The role of Alberta Advanced Education and Manpower is to administer legislation relating to adult education and training, monitor system development, fund the capital and operating aspects of the programs and institutions, and to act as a formal deliverer of services through the provincially owned institutions it operates.

Special agencies and institutions such as ACCESS, the Consortia, Athabasca University have ambiguous roles that are slowly evolving.

Ambiguity also exists regarding the simultaneous monitoring, funding, and delivery roles of Alberta Advanced Education and Manpower.

To clarify these roles and purposes we propose:

STRATEGY 7	All delivery agencies including Alberta Advanced Education and Manpower, ACCESS, and the Consortia develop formal role statements outlining their desired roles and mandates regarding: * delivery and its initiation. * needs assessment and planning. * monitoring and control. * funding. Upon formulation, Alberta Advanced Education and Manpower should develop a consultative process to reconcile these roles in a flexible yet realistic way.
Primary Responsibility for Action	Advanced Education and Manpower, and all delivery agents in the system.

FIGURE 4.1

PRESENT COMPONENTS OF AETNA (by Degree of Provincial Control)

Provincially Administered Institutions	Provincially Administered AAE & M Programs	Board Governed Institutions	Private/Industry/Federal
AVC Lac La Biche	Career Centres	Fairview College	Grande Prairie Beauty College
AVC Grouard	ACCESS	Grande Prairie Regional College	La Coupe School of Beauty Culture
Community Vocational Centres	Apprenticeship Branch	Keyano College	Adcam Educational Systems
Alberta Petroleum Industry Training Centre	Employment Counselling & Relocation Services	Lakeland College	H & R Block
	Opportunity Corps	Athabasca University	Life Skills Training Centre
	Student Finance Board		
	Alberta Vocational Training Program	University of Alberta	Syncrude
	Further Education Councils	University of Calgary	Suncor
	Job Identification Branch	Grant MacEwan Community College	Proctor & Gamble
		NAIT	Shell
		SAIT	Acquitaine, etc.
	Alberta Agriculture		Blue Quills
	Alberta Correspondence School		Rural Education & Development Association
	North Peace Adult Education Consortium		Canada Employment & Immigration Commission
	Yellowhead Consortium		Indian and Northern Affairs

STRATEGY 8	Alberta Advanced Education and Manpower should evolve into a definite role which includes: * administration of legislation. * program and facility approvals. * funding of operating and capital costs. * System level Strategic Planning. * Policy Development. The Department should gradually relinquish its role as a direct delivery agent and replace it with the role of initiating change and improvements.
Primary Reponsibility	Alberta Advanced Education and Manpower.

Government Policy and Planning for Educational Services

The need for government policy expressed by many institutions notably reflects a wish for planning direction, but also indicates a frustration in not knowing what to do in the face on uncertainty (mega-projects) and competition (other institutions). Planning is a sensitive matter in Alberta, with the government attempting to strike a balance between central planning which provides direction, and local planning, which reflects initiative and immediate area needs.

More planning and policy information needs to be developed and communicated by Alberta Advanced Education and Manpower to institutions and communities.

Information on government strategies affecting local decisions or programming is limited. The 1981 document by Alberta Advanced Education and Manpower entitled "The Context For Continuing Development of Post-Secondary Education Services" (Appendix 5), despite its generality and limited applicability to much local planning, is an important document, one of the few of its type broadly available. It was developed primarily because senior staff took the important initiative of visiting all major Alberta post-secondary institutions in the Spring of 1981. Other papers on strategic issues are produced by Advanded Education and Manpower and are available, but infrequently referred to by institutions and delivery agents.

The absence of articulated and distributed policy statements, and major strategic aims and goals at the provincial level, as well as the limited skills and planning funds at the local level to develop plans systematically and consistently within declared provincial objectives, is a special gap in the system requiring strategic action, leading to resolution of problems of coordination, duplication and unnecessary competition.

Accordingly, we recommend:

STRATEGY 9

Alberta Advanced Education and Manpower established a practice of formulating yearly strategic planning papers for the province as a whole, and its specific geographic sections, of which northern Alberta should be a prime example. These papers should be distributed to each delivery agency annually and include information on:

* demographic forecasts and trends.
* economic trends.
* participation rates.
* labour force requirements.
* new policy directions.
* other trends and issues.

Primary Responsibility for Action

Advanced Education and Manpower.

STRATEGY 10

Incentive structures should be developed at the provincial level to facilitate the growth and availability of planning and management capability for local agencies.

Primary Responsibility for Action

Advanced Education and Manpower.

Local Governance

Field experience suggests, although cannot confirm, that those institutions in northern Alberta which are presently Board governed appear to have greater flexibility in meeting local needs as they arise, and in devising innovative delivery mechanisms. This may be due in large part to their ability to manoeuver within the confines of their base budgets. Board-governed institutions face some frustrations in program planning such as the lag time required to get new programs approved and funded, and in acquiring funding for planning, administrative, and other support costs associated with new or expanded programs.

The heart of this strategy would require Alberta Advanced Education and Manpower to recognize the value of local governance, to assist additional institutions in northern Alberta to become board-governed, and to assist those presently board-governed to have greater flexibility in launching new programs.

Two underlying premises for advancing this strategy are: the need to provide a basic level of training (Grade 10) at the community level; and that community people are in the best position to define the content of that basic level, if they are given the information and resources to do so. Specific strategies to further local governance are:

STRATEGY 11 — Develop a commitment to local governance and explore the viability of its implementation in the following ways:

* The Alberta Vocational Centres at Lac la Biche and Grouard be considered for board-governed status, and become two year Community Colleges.

* The Community Vocational Centres, Career Centres, Opportunity Corps and other provincially administered programs must be given greater autonomy for decision-making through the establishment of recognized advisory committees with defined responsibilities for local decision-making and hence accountability.

* All institutions and programs must be given the resources to establish local advisory committees, comprised of representatives of the communities served by the programs.

* The existing consortia, which have shown great promise, be assisted in carrying out their mandates. Consideration must be given to expanding the concept to other northern regions, such as the north-central region (Slave Lake, Wabasca, Calling Lake, etc.) and the northeast region (Fort McMurray, Lac La Biche, Bonnyville, Cold Lake).

* The development of local advisory committees and/or boards, including representation from the K-12 system, in order to facilitate communication between the two systems and to provide a bridge for cooperative training programming.

* Appointment of Board members includes Natives, both status and non-status, and Metis in a meaningful way.

Primary Responsibility for Action	Advanced Education and Manpower in consultation with local institutions and community representatives.

Regionalization

This strategy would develop a structured hierarchy of centres with progressively more complex and rich programming capability. This approach would limit jurisdictional overlaps and potential competition associated with establishing more independent institutions throughout northern Alberta. In essence, some provincially administered institutions would become satellites of existing Board-governed institutions, and/or amalgamated to serve particular regions and/or particular northern needs.

STRATEGY 12

Explore the feasibility of formal regionalization, in particular, considering the following:

* AVC Lac La Biche become a satellite of Lakeland College, with a continuing mandate to serve the training needs of Native people throughout the Lakeland service region as well as serving its immediate region.

* AVC Grouard become a satellite of Grande Prairie Regional College, with a similar mandate to serve Native people within the Grande Prairie Regional College service area as well as needs of others within the immediate Slave Lake region.

* The Community Vocational Centres and Opportunity Corps be amalgamated and the new organization have an expanded mandate to become a mobile training unit serving the basic training needs of remote communities throughout the north. This new entity would build on existing linkages and would take on responsibility for delivery of basic modules of apprenticeship and skill training in remote communities, potentially avoiding duplication, and facilitating the combination of resources and expertise.

* Appointment of Board members to necessarily include representation from the remote Native and Metis communities.

* Fairview College to continue its work currently with the Mackenzie North Project, providing regional programming to the northwestern corner of the province, including such communities as High Level and Fort Vermilion, through such facilities as may be appropriate.

Primary Responsibility for Action	Advanced Education and Manpower in consultation with local institutions and community representatives.

Consortium for Northern Native Education

Throughout the north, grave concern has been expressed regarding the failings of the education system in meeting the needs of Native people including Status, non-Status and Metis. Using the existing consortium concept for regional delivery, the Native Consortium would bring together the institutions and programs currently serving Native people (Blue Quills, Community Vocational Centres, Alberta Vocational Centres, Opportunity Corps, etc.) and would facilitate coordination of their efforts to provide a focus for Native education. The service area would be the Native community as a whole, but with an emphasis on providing basic training to remote Native communities and on creating a training ladder for Native people. The consortium would have not only a delivery coordination role, but also a counselling and information dissemination role and a planning function for both the short and long terms.

This approach to training would begin to address the issue of Native education for adults. The main focus of the Consortium would be to identify needs in the remote communities and to coordinate delivery of programs.

An advisory committee made up of representatives from the various communities should be struck to give overall direction to the Consortium. In addition, each community would have an advisory committee to identify specific needs and provide the Consortium with feedback on an ongoing basis. The Consortium could be jointly funded by Advanced Education and Manpower and the Federal Government.

STRATEGY 13	Explore the Development of a Consortium for Northern Native Education.
Primary Responsibility for Action	Advanced Education and Manpower in consultation with Native representatives, Federal Government, Department of Indian and Northern Affairs representatives, and institutions/programs involved.

Action on the thirteen strategies presented to this point would require a concurrent reassessment of fiscal impacts and resource allocation priorities by funding agencies. Such a review should also encompass an assessment of the general relevancy of standards and funding approaches in northern Alberta compared to the south, as well as other financial issues, such as training allowances, etc.

STRATEGY 14	Review funding levels and approaches to programs/institutions in the north, in the light of northern realities, system structure changes and with a view to creating incentives which enhance and encourage local governance and regionalization.
Primary Responsibility for Action	Advanced Education and Manpower in consultation with delivery agents in the study area.

The fourteen strategies presented in this section contribute to the development of system structure, with particular consideration given to Native Education and facilitation of local delivery through emphasis on decentralized but regionalized delivery and control. The approach has therefore tackled two of the high priority weakness areas, and addressed the general problem of inadequate system definition and coordination, as well as planning capability and needs analysis.

The fourteen strategies are all intended for action in the 1982-86 period. Subject to acceptance of their reasonableness and relevancy, there is no compelling reason not to initiate action on these items in the first part of the decade forming the planning horizon for this study.

4.5.2 Strategies Specific to Programming

The needs and priorities for normal growth programming have been identified in previous sections, for example Table 4.1. The suggested priorities for development will not apply equally to each locale in the study area, because of its heterogeneous nature. It will be necessary to assess these priorities on a local basis and adjust them to specific local needs. This assessment, followed by appropriate adjustment, should be done as soon as possible, and in any case in the period 1982-1986.

STRATEGY 15	Review, adjust and specify programming priorities on a local need basis, using Table 4.1 data as a starting point.
Primary Responsibility for Action	Local agencies and delivery programs in consultation with Alberta Advanced Education and Manpower.

The future of mega-project development appears grim, but is not yet dead: the Cold Lake and Canstar projects are still only "shelved" although Alsands has collapsed.

Programming to meet the needs of such projects will not likely be required until 1987-1991, and the strategy to deal with this issue is therefore:

STRATEGY 16	Continue monitoring economic developments, particularly potential go-ahead mega-projects, and alert the system to mobilize its resources as early as possible when the need arises.
Primary Responsibility for Action	Advanced Education and Manpower in consultation with delivery agents in the study area.
STRATEGY 17	Subject to specific indications of short and intermediate local needs and requirements generated by normal growth, institutions and agencies should continue programming at current levels, but not develop resources to expand them.
Primary Responsibility for Action	Advanced Education and Manpower in consultation with delivery agents in the study area.

4.5.3 Delivery Strategies

The required characteristics of the desired system of Adult Education and Training in Northern Alberta include AVAILABILITY, ACCESSIBILITY AND RELEVANCY of program delivery. In view of the heterogenicity of the study area and its needs, a mix of delivery strategies is presented. The development of Community Adult Learning Centres and of specific Distance Education Technologies is recommended for the study area as a whole.

Both developments would increase accessibility to existing programs by making them available locally. In addition, the identification of educational opportunities not recognized previously would likely generate demand for new programs, thereby enhancing availability.

The proposed Folk School delivery approach would make available heritage based programming to Native people, meeting a need that is just beginning to be recognized.

The delivery strategies of furthering On-the-Job training and paying more than lip service to the "community" college concept, serves to advance the notion of relevancy of programming.

Community Adult Learning Centres

Every community should have an established community learning centre that can be the focus, not only for delivering programs, but as an easily identifiable 'place' where adults satisfy needs to learn new concepts and/or skills. What the place is, is less important than that there be a place.

The learning centre should be staffed either by a part-time contact person or a full-time learning facilitator, depending on demand. The title "learning facilitator" rather than "educator" or "teacher" etc. is used because such titles imply a professional/academic level training specific to education or the area to be taught. "Facilitators", on the other hand, need not instruct anyone in anything. Their job would be to bring a potential learner into contact with an individual directly, or through some medium in order that instruction takes place. The facilitator would be trained by the centre to identify needs and to seek out means of meeting those needs. In addition the role of the facilitator would be to develop awareness and interest in adult education and training within the community.

The facilitator may, for example, use video cassettes of the CBC series "Nature of Things" to heighten community awareness in the sciences; or negotiate with a training institution to deliver an on-site welding program; or identify a need for a basic education program when a "teacher" is hired to teach, and the facilitator acts as an assistant. The possibilities are infinitely expandable, but the key is a learning facilitator who is accepted and respected in the community.

The learning centre would have to be equipped with a rotating library, a video-cassette player, a 35mm slide/film strip projector and a tape recorder, and as feasible various distance education technology devices including a possible link to a communications satellite. With the facilitator trained in the use of this equipment specific teaching/skill knowledge subjects could be made available. A range of opportunities could be made available to individuals and/or groups. For example if one or more individuals would like, as a first step in learning, to find out how to do mechanical work on a motor vehicle, a taped program in pre-employment or introductory mechanics would be made available. The special advantage of this approach is the ability to respond to what individuals see as their immediate needs, whether they are how to use an electric device in the home, or how to build a box.

STRATEGY 18	Develop the concept of the adult community learning centre over the next two years, establishing pilot projects associated with existing facilities (e.g. community schools). In the period 1986-1991 expand the concept to cover most centres in the area.
Primary Responsibility for Action	Advanced Education and Manpower acting in cooperation with local advisory councils struck for the purpose of facilitating development of the concept. These councils must include Native representation in a meaningful way.

Distance Education Technology

A strong feeling exists among many of those interviewed during the fieldwork that state of the art communication and computer technology has a definite role to play in northern Alberta. Athabasca University with its home study mode of delivery, the University of Calgary with its teleconferencing centres and the supportive role of ACCESS in this and other examples demonstrate that applications of distance teaching technologies are in place.

This delivery mode would systematically integrate interactive technologies into the teaching process, using a land and satellite based communications network to bring programming to a broad range of individuals in the north, located in differing locales.

RMC

Principal delivery participants would be selected among institutions, community schools, etc., equipped to received communication signals from ACCESS and Athabasca University.

Initially (to 1986), ACCESS would have responsibility for program format development, program cost-sharing and planning a rationale for the system. Athabasca University would initially (to 1986) be responsible for program content development and application of Distance Education. Development beyond 1986 would have to recognize the limited capability and capacity Athabasca University would have in facilitating the development of vocational/technical programming, given its university level role and consequent staff interest and expertise. Responsibility for program content and application of this mode of instruction would shift to other relevant institutions in the area.

A basic approach to further use of this delivery mode would be to ensure that hardware is distributed and communication capability is in place. Software/Courseware development will follow suit.

A second consideration should be the identification of specific target groups for the development of programs in the Distance Education mode, in order to ensure effectiveness. Early Native involvement in the development of this mode of delivery would be important.

As the system evolved, major responsibility would have to be given to one agency (probably ACCESS) to act as a utility, and support adult education and services by providing centralized services for Distance Education. The services would continue to be provided through existing institutions and local centres (e.g. Adult Learning Centre). The agency would coordinate all institutional efforts with Distance Education, be responsible for development and maintenance of all infrastructure and generally act as a utility serving the needs of individual components of the Adult Education and Training System of Northern Alberta.

STRATEGY 19

Advanced Education and Manpower to initiate a major funded project, involving representatives of ACCESS and Native representatives, and the post-secondary institutions serving the study area, to develop a comprehensive plan to practically exploit existing telecommunication and computer based teaching technologies, in the interests of maximizing access to adult education and training for all northern Albertans. This project and the implementation of the resultant plan should have high priority at Advanced Education and Manpower.

RMC

Primary Responsibility for Action	Advanced Education and Manpower acting in consultation with institutional and Native representatives.

Folk School

The folk school concept for delivery is based on the premise that individuals must not only become acquainted or re-acquainted with their own cultural heritage, but also achieve a level of awareness of their cultural identity and reconcile and accommodate their identity to the cultural demands of the society at large. For many individuals, the nurturing of this awareness is the only realistic way of instilling sufficient pride and self confidence in young adults to kindle a sustained interest in learning and a potential for full participation in the larger society of Alberta.

The Folk School approach to delivery has been in practice in Scandinavian countries for over a hundred years. Various models exist on this continent: the Cherokee Inter-Cultural Classroom [2], and the Adult Education alternative of St. Frances Xavier University in Antigonish, Nova Scotia. In most cases, this delivery mode requires sustained funding support and a high degree of local autonomy.

This delivery model could be integrated into the Consortium for Northern Native Education of section 4.5.1.

STRATEGY 20	In consultation with the Native communities in the study area, develop two pilot projects to 1986, and then pursue further extention of this mode if found effective.
Primary Responsibility for Action	Advanced Education and Manpower in consultation with Native representatives and Department of Indian Affairs and Northern Development.

RMC

Training on-the-Job

Training on-the-job- is a self explanatory notion for delivery, providing the special advantage of relevancy and possible future employment at an early stage. Depending on skill areas chosen, the trainee would move from pre-employment training to an actual job or to full time formal training in a community college or technical institute. The Syncrude example discussed in Chapter 2 is one good illustration of this form of delivery.

For certain on-the-job training skill areas it would be important to involve the Apprenticeship Branch to ensure their cooperation and acceptance of the training program. In the designated trades that participants should receive full recognition for their efforts at the earliest possible point in the training program.

As an example, an individual on a planned structured on-the-job training program in carpentry could have a program built around:

- four weeks classroom introductory training, followed by 12 weeks on the job when the journeyman is responsible for ensuring and satisfying himself that the trainee is competent to perform certain tasks; then another four weeks classroom training followed by a further 12 weeks on the job with the journeyman responsible again for ensuring competency in designated tasks. This time-table is repeated so that at the end of 12 months the individual has completed 12 weeks in formal classroom training and 36 weeks in a structured on job experience training. (This should be equivalent to first year theory for Apprenticeship Training, and a full year time credit as a minimum).

Key aspects of this delivery mode, as in all training, is that the program be developed around a skill competency alternative to ensure immediate feedback to the trainee. Disadvantaged trainees have a history of failure and need measurable success in small modules to rebuild their concept of self.

STRATEGY 21	Explore opportunities and develop incentives for industry and institutions to further the on-the-job training as a delivery mechanism, particularly in high priority programming areas of Table 4.1.
Primary Responsibility for Action	Local institutions. Alberta Advanced Education and Manpower. Industry. Initiative should be local.

RMC

Community College

The concept of a Community College implies a full partnership between a college and the community is serves. This means that a college would involve itself, and even take a leadership role in cultural, recreational and other aspects of community life, as well as education.

To do so the college must understand its community and the people of its service area. In the delivery of education to adults this means commitment to both credit and non-credit programs and to delivery of courses to the regional community. Most important, it means some adaptation to the adult learner or to trainees from remote, disadvantaged communities and families.

The key to most, if not all, education/training programs designed to meet the needs of northern and particularly remote northern Alberta, is delivery method. To this end the cyclic rhythms of the peoples lives must be recognized and accommodations of program delivery to these rhythms must be made. For instance in communities that depend both culturally and materially on subsistance hunting/trapping, programs could be delivered in the lowest part of the season. Similarly, programs and courses serving adults who have part time jobs or family obligations particularly women need to be given during extended college hours.

To accommodate such cyclic patterns and to ensure individual success, three elements should be considered:

* Training programs must be broken into relatively small modules with clearly established plateaus where success can be measured (a competency based approach to education/training). Instruction in modules may be interspersed with time outside of training.

* Access to the family/community support structure is particularly important in order to prevent feelings of isolation and alienation from the group.

* Time frames for completion of modules should be attributed limited relevance to education/training. Competency and the ability to perform should be the criteria.

Community College delivery which would adequately adapt to community life style factors would be characterized by: programs segmented into inter-related but separate modules; delivered in the home community, on the job or at a regional or area centre that is committed to achieving agreed upon standards; are relatively independent of time frames; are competency based.

RMC

STRATEGY 22	Review the concept of the "community" college, and the means by which each delivers services, with the intent to respond more directly to individual needs of adult learners in their communities.
Primary Responsibility for Action	Advanced Education and Manpower acting in consultation with colleges and other institutions.

The implementation of the varying delivery modes is a matter of matching delivery approach to local needs. This is best accomplished at the local level, with choices being made on an informed basis, recognizing costs, human and facility resource requirements, and organizational implications.

STRATEGY 23	Draw up pro forma cost and human and facility resource implications for representative sizes of operations for each of the delivery approaches, to develop a better understanding of implications prior to implementation, and make these available on request to communities to act as a starting point for discussion on how to develop desired approaches.
Primary Responsibility for Action	Advanced Education and Manpower.
STRATEGY 24	Review funding approaches and formula levels with the intent of encouraging innovation and diversity of approaches to delivery.
Primary Responsibility for Action	Advanced Education and Manpower in consultation with institutions and Native community and industry representatives.

The delivery approaches presented in this section complete the discussion on the means by which the gap between the current and desired system of Adult Education and Training in Northern Alberta can be bridged. Specific solutions are not presented, as they must evolve within the context of local priorities and other needs. The framework of strategies for developing solutions, however, provides significant direction to the system as a whole, thereby facilitating local level strategic planning and ultimate operations.

The final point is one of system closure and accountability. While evaluation and monitoring continues to be the role of Alberta Advanced Education and Manpower, and references has been made to northern participation in all aspects of delivery, including monitoring, an explicit recommendation regarding evaluation and monitoring is presented:

STRATEGY 25	A system wide policy should require the formulation and meaningful implementation of a full range of advisory committees to each institution and program. The advisory committees should comprise representatives of the local community with special interests and/or relevant expertise, including Native representatives. The mandate of these committees should be to assist the administration and management of each program/institution to ensure relevancy and effectiveness in delivery, and efficiency in the use of resources.
Primary Responsibility for Action	Advanced Education and Manpower and all components of the system.

4.6 OBSERVATIONS AND CONCLUSIONS

This study had addressed the question of Adult Education and Training in Northern Alberta. The progression of this report has been as follows:

* Background and Introduction to the Study.

* Definition of WHAT exists in the system and HOW WELL it works, in terms of strengths and weaknesses.

* Identification of system wide needs to establish WHAT WILL BE REQUIRED in the future.

* Formulation of DESIRED SYSTEM characteristics for the future in terms of its primary AIM and GOALS; and development of a set of recommended STRATEGIES and approaches to bridge the planning gap between current and desired system states.

In keeping with the concept of strategic planning, the focus has been on major, system wide issues and concerns. What has been developed is a framework for further planning, both at the system and local levels.

Accordingly, the results of this report represent a beginning, rather than an end. The report is intended to generate system wide discussion, in the first instance, at a major workshop in June 1982. This workshop will provide an opportunity of not only assessing the validity and appropriateness of the study findings and recommendations, but also a chance for major stakeholders to begin the process of developing ownership and commitment to the goal structure and strategies representing the desired system of the future and the means to move towards its implementation.

In the second instance, the study findings and recommendations are a beginning, because more detailed operational planning, within the general framework of finalized aims and goals must be initiated at system wide and local levels. This general coordination of planning effort, keyed to strategic level results, is an important means by which system cohesion and purpose can be developed. Finally, we note that this study concludes with the suggestion that further research be carried out to facilitate future planning. Manpower projections on a study area basis would be extremely helpful. A better understanding of Native needs and issues would be valuable, as would a more detailed, systematic assessment of service utilization and local area needs.

In the face of the possible demise of mega-project possibilities, better population forecasts need to be made, clearly outlining assumptions on economic development.

Additional research efforts to these ends would be welcome contributions to the task of strategic planning for the system of Adult Education and Training in Northern Alberta.

NOTES TO CHAPTER 4

1. Butterworth, S.V., The Maori People in the New Zealand Economy.

2. Education Readings in the Process of Cultural Transmission, edited by Harry M. Lindquist, Houghton Mifflin, 1970

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2

AETNA

Adult Education
and
Training in
Northern Alberta

APPENDIX
to
A Background Report
Prepared for the
Northern Alberta Development Council
by
Resources Management Consultants
(Alberta) Ltd.
May 1982

REVIEW OF ADULT EDUCATION

AND TRAINING

IN NORTHERN ALBERTA

APPENDICES

BACKGROUND REPORT

PREPARED FOR THE

NORTHERN ALBERTA DEVELOPMENT COUNCIL

MAY 1, 1982

RESOURCES MANAGEMENT CONSULTANTS (ALBERTA) LTD.
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Table A1.1

POPULATION DISTRIBUTION, CENSUS DIVISION 12 (NADC PORTION)
BY SUBDIVISION COUNT 1976 AND 1981

SUBDIVISION	1976	1981	% Change
Cities and Towns			
Bonnyville	2,948 A	4,333	47.0
Cold Lake	1,372 A	2,056	49.9
Elk Point	822 A	1,011	23.0
Ft. McMurray	15,424	30,368	96.9
Grand Centre	2,800	3,050	8.9
Lac La Biche	1,993 A	1,973	- 1.0
St. Paul	4,351 A	4,800	10.3
Subtotal	29,710	47,591	60.2
(Excluding Ft.McMurray)	(14,286)	(17,223)	(20.6)
Villages & Summer Villages			
Bonnyville Beach	7	45	542.9
Glendon	370	425	14.9
Pelican Narrows	-	29	-
Plamondon	228	257	12.7
Subtotal	605	756	24.9
Counties MDs & IDs			
Bonnyville MD 87	9,699 A	9,071	- 6.5
I.D. 18	8,375 A	9,513	13.6
I.D. 24	199	186	- 6.5
St. Paul County 19	5,414 A	6,020	11.2
Subtotal	23,687	24,790	4.7
Indian Reserves			
Beaver Lake 131	202	213	5.5
Cold Lake 149, A, B	597	554	- 7.2
Gregoire Lake 176	44 A	58	31.8
Heart Lake 167	53 A	79	49.1
Janvier 194	245	161	-34.3
Kehiwin 123	453	580	28.0
Puskiakiwenin 122	92	188	104.4
Unipouheos 121	556	459	-17.5
Subtotal	2,242	2,292	2.2
TOTAL CD 12	56,244	75,429	34.1
(Excluding Ft.McMurray	(40,820)	(45,061)	(10.4)

Note: A - indicates the 1976 count has been adjusted to reflect changes in boundaries.

Source: Statistics Canada, 1981 Census, Interim Report, January 1981.

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Table A1.2

POPULATION DISTRIBUTION, CENSUS DIVISION 13 (NADC PORTION)
BY SUBDIVISION COUNT, 1976-1981

SUBDIVISION	1976	1981	% Change
Cities and Towns			
Athabasca	1,823 A	1,707	- 6.4
Whitecourt	3,878	5,450	40.5
Subtotal	5,701	7,157	25.5
Villages			
Boyle	581	626	7.8
Ft. Assiniboine	187	205	9.6
Subtotal	768	831	8.1
Counties and ID's			
Athabasca County 12	5,306	5,905	11.3
I.D. 15	2,212	2,649	19.8
Subtotal	7,518	8,554	13.8
TOTAL CD 13	13,987	16,542	18.3

Source: Statistics Canada, 1981 Census, Interim Report, January 1981.

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Table A1.3

POPULATION DISTRIBUTION, CENSUS DIVISION 15
BY SUBDIVISION COUNT, 1976-1981

SUBDIVISION	1976	1981	% Change
Cities and Towns			
Beaverlodge	1,371 A	1,904	38.9
Fairview	2,273 A	2,838	24.9
Falher	1,123 A	1,091	- 2.9
Fox Creek	1,625	1,948	19.9
Grande Cache	4,116	4,453	8.2
Grande Prairie	17,626	23,800	35.0
Grimshaw	1,679 A	2,267	35.0
High Level	1,562	2,135	36.7
High Prairie	2,364 A	2,469	4.4
Manning	1,058 A	1,158	9.5
McLennan	1,133	1,113	- 1.8
Peace River	4,913 A	5,768	17.4
Rainbow Lake	434	501	15.4
Sexsmith	770	1,170	52.0
Slave Lake	3,561	4,409	23.8
Spirit River	1,020	1,094	7.3
Swan Hills	2,012	2,442	21.4
Valleyview	1,716	2,016	17.5
Wembley	507	1,154	127.6
Subtotal	50,836	63,730	25.3
Villages			
Berwyn	444 A	553	24.6
Donnelly	282 A	333	18.1
Eaglesham	229	206	-10.0
Girouxville	308 A	323	4.9
Hines Creek	503	567	12.7
Hythe	477 A	632	32.5
Kinuso	305	283	- 7.2
Nampa	286	331	15.7
Rycroft	533	643	20.6
Wanham	225	258	14.7
Subtotal	2,529	4,129	14.9

Continued

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Table A1.3 (cont)

SUBDIVISION	1976	1981	% Change
Counties, MDs, IDs			
Fairview MD 136	1,730 A	1,875	8.4
Grande Prairie County 1	9,091 A	11,952	31.5
I.D. 16	4,561	5,297	16.1
I.D. 17	11,062 A	11,587	4.8
I.D. 19	1,81[illegible]	1,744	- 4.0
I.D. 20	2,667	2,969	11.3
I.D. 21	2,648	2,903	9.6
I.D. 22	3,819 A	4,210	10.2
I.D. 23	5,070 A	5,795	14.3
Peace River M.D. 135	1,485 A	1,507	1.5
Smoky River M.D. 130	2,936 A	2,828	- 3.7
Spirit River M.D. 133	857	884	3.2
Subtotal	47,742	53,551	12.2
Indian Reserves			
Beaver Ranch 163	14	8	-42.9
Boyer 164	82	94	14.6
Child Lake 164A	117	102	-12.8
Bushe River 207	0	59	-
Hay Lake 209	984	803	-18.4
Upper Hay 212	0	282	-
Drift Pile River 150	309	426	37.9
Sucker Creek 150A	239	272	13.8
Freeman 150B	18	29	61.1
Pakashan 150D	3	2	-33.3
Swan River 150E	109	147	34.9
Sawridge 150G	14	25	78.6
Sawridge 150H	11	15	36.4
Duncan's 151A	51	43	-15.7
Horse Lakes 152B	79	111	40.5
Clear Hills 152C	1	0	-100.0
Sturgeon Lake 154	597	560	- 6.2
Utikoomak Lake 155	423	374	- 11.6
Fox Lake 162	482	629	30.5
Wabasca 166-166D	658	729	10.8
Tall Cree 173; 173A	184	234	27.2
J.B. Gambler 183	95	67	- 29.5
Jean D'Or Prairie 215	326	433	32.8
Subtotal	4,796	5,444	13.5
TOTAL CD 15	106,993	126,824	18.5

Source: Statistics Canada, 1981 Census, Interim Report, January 1981

RMC

TABLE A2.1

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
ACADEMIC UPGRADING	Alberta Vocational Centre (Grouard)	Varies	17 years of age and out of school one year.
	Grande Prairie Regional College	Varies (Pre-High School or High School)	Testing required. Open-door policy 18 years of age.
Basic Education	Keyano College	Varies (Grade I - IX)	18 years of age.
	Keyano College	Varies	18 years of age.
Combined Matriculation	Grande Prairie Regional College	Varies	English 30 and three other appropriate Grade XII subjects with an overall average of 60%.
High School Enrichment	Grande Prairie Regional College	Varies	Regular Grade XII high school students may register as "special students" for one university level course taken in conjunction with their regular high school program based on Grade X academic record and recommendation by teacher and principal and parental approval.

Source: Alberta Advanced Education and Manpower - Post-Secondary Education Programs 1980-81.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
Vocational Preparation	Alberta Vocational Centre (Grouard)	Varies	17 years of age and out of school one year.
	Alberta Vocational Centre (Lac La Biche)	40 Weeks Certificate	Standard admission*
	Fairview College	Varies	Adult status or high school diploma.
	Keyano College	Varies	18 years of age.
	Lakeland College	Varies	17 years of age.
AERIAL APPLICATOR TRAINING	Lakeland College	6 weeks Certificate	18 years of age with equivalent of Canadian Commercial Pilot Licence, successful completion of pre-study package and entrance examination.
AGRICULTURAL BUSINESS			
Agri-Business	Fairview College	2 years Diploma	18 years of age and/or a high school diploma with a "C" or better standing in Math 20 or 23, English 20 or 23, Chemistry 20 and Biology 20; or adult status; or personal interview.
	Lakeland College	2 years Diploma	Standard admission

* Standard Admission refers to the standard admission requirements of the particular institution involved; they vary somewhat from institution to institution, but generally refer to minimum age of 17 or 18, with high school diploma or one year out of school.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
AGRICULTURAL EQUIPMENT	Lakeland College	2 Years Diploma	Standard admission; Grade XI.
AGRICULTURAL MECHANICS	Lakeland College	2 Years Diploma	Standard admission; Grade XI.
AGRICULTURAL SYSTEMS	Lakeland College	2 Years Diploma	Standard admission; Grade XI.
Agricultural Transfer Program to University of Alberta	Grande Prairie Regional College	1 Year	Standard admission with Math 30. Biology 30 and Chemistry 30 recommended.
Agricultural Sciences	Lakeland College	2 Years	Standard admission with Grade XI chemistry, biology, English and math.
Agricultural Technology	Fairview College Specialization in: - Agricultural Mechanics - Crop Production Tech. - Farm Management Tech. - Livestock Production Tech. - General	2 Years Diploma	18 years of age and/or a high school diploma with "C" standing in Math 20 or 23, English 20 or 23, Chemistry 20 and Biology 20 or adult status or by interview.
Vocational Agriculture	Lakeland College	2 Years Diploma	Consent of the Registrar

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
ANIMAL HEALTH CARE TECHNOLOGY	Fairview College	2 Years Diploma (4 months practicum)	Grade XII matriculation, Grade XII chemistry and Grade XII math and biology or equivalent. Veterinary practice experience or farm background an asset.
APPRAISAL AND ASSESSMENT	Lakeland College	2 Years Diploma	Standard admission.
ARCHITECTURE			
Architectural Construction	Lakeland College	2 Years Diploma	High school diploma with Grade XI math.
ARTS AND FINE ARTS			
Visual Arts	Grande Prairie Regional College	1 Year Certificate	Standard admission Portfolio required.
ARTS AND SCIENCES, GENERAL PROGRAM	Grande Prairie Regional College	2 Years University Transfer	Standard admission
AUTOMOTIVE MECHANICS SPECIALIZATION	Fairview College		
BARTENDING			
Mixology	Alberta Vocational Centre (Grouard)	5 Weeks	18 years of age with Grade X or special student status arranged by interview or job resume.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
BEAUTICIAN			
Beauty Culture	Grande Prairie Beauty College	8 Months	Minimum 16 years of age with Grade IX and parental consent. Interview required.
BEEKEEPER TECHNICIAN	Fairview College	8 Months (6 month practicum) Certificate	18 years of age with good health; not hypersensitive to stings. Literary skills at Grade X level. Valid vehicle operator's licence. Preference given to applicants who agree to summer salaried field placement with an approved commercial beekeeper.
BILINGUAL SECRETARY SPECIALIZATION	Grande Prairie Regional College		
BOOKKEEPER - TYPIST			
Bookkeeper - Typist Specialization (See Business Education - Secretarial Arts)	Lakeland College		
BRICKLAYER			
Bricklaying, Pre-Employment	Alberta Vocational Centre (Lac La Biche)	16 Weeks Certificate	Grade IX, standard admission

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
BUSINESS ADMINISTRATION AND COMMERCE			
Administrative Studies	Grande Prairie Regional College Specialization in: - Accounting - General - Marketing	1 Year Certificate 2 Years Diploma	High school diploma or adult status
Business	Fairview College	1 Year Diploma	High school diploma with "C" standing in Grade XI math and English or adult status with equivalent.
	Fairview College Specialization in: - Local Government Administration - Office and Small Business Administration	2 Years Diploma	High school diploma, completion of a Business Certificate program, or adult status with equivalent combination of training and experience.
Business Administration	Fairview College Extension Specialization in: - Local Government Administration - Office and Small Business Management	Day and Evening Courses Certificate	High school diploma and two years experience in business or public administration or adult status

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
	Keyano College	1 Year Certificate 2 Years Diploma	High school diploma or adult status plus an interview.
	Lakeland College	1 Year Certificate	High school diploma or equivalent.
Business Transfer Programs	Grande Prairie Regional College (Grande Prairie) to University of Alberta	2 Years	Standard admission with Math 30. Social Studies 30 recommended
BUSINESS EDUCATION			
Bookkeeper - Typist	Keyano College	1 Year Certificate	Grade X and a pass mark on an entrance test plus an interview.
Business Education	Alberta Vocational Centre (Grouard)	22 Weeks Certificate	Grade X
Clerical	Alberta Vocational Centre (Lac La Biche)	40 Weeks Certificate	18 years of age, Grade XI or equivalent or adult status. Interview reuired.
Clerk Steno	Keyano College	1 Year (Certificate)	Grade X and a pass mark on an entrance test plus an interview.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
Clerk Typist	Alberta Vocational Centre (Grouard)	41 Weeks Certificate	17 years of age, out of school for one year; must be considered a disadvantaged adult, sponsored by Canada Employment and Immigration Commission or Alberta Advanced Education and Manpower; typing speed of 20 wpm. Pre-testing required.
	Fairview College (Offered off-campus at High Level, Peace River)	1 year Certificate	Adult who has been out of school for at least one year, Grade X or equivalent.
	Keyano College	1 Year Certificate	Grade X and a pass mark on an entrance test plus an interview.
Secretarial Arts	Lakeland College (Various locations) Specialization in: - Bookkeeper-Typist - Clerk-Typist - Secretary - Stenographer	1 Year Certificate	Standard admission
Secretarial Certificate	Fairview College Specialization in: - Clerical Assistant - Stenographer	1 Year Certificate	Grade XII with "C" standing in Grade X math and XI English or adult status.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
Secretarial Sciences or	Grande Prairie Regional College Specialization in: - Accounting - Shorthand	1 Year	High school diploma or adult status
	Grande Prairie Regional College Specialization in: - Accounting Secretary - Bilingual Secretary - Legal Secretary	2 Years	High school diploma or adult status
Secretary, Executive	Fairview College	2 Years Diploma	Successful completion of a one-year college Business or Secretarial Certificate program or equivalent combination of training or experience. Two years working experience recommended.
Secretary, Legal	Adcam Educational Systems	4 Months	16 years of age. Basic secretarial training or related work experience with 35 wpm typing.
Stenographer	Keyano College	1 Year Certificate	Grade X and a pass mark on an entrance exam plus an interview.
Stenographic	Alberta Vocational Centre (Lac La Biche)	40 Weeks Certificate	18 years of age. Grade XI or equivalent or adult status. Interview required.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
CABINETMAKER			
Finish Carpentry, Pre-Employment	Alberta Vocational Centre (Lac La Biche)	8 Weeks Certificate	Grade IX or equivalent, standard admission.
CANADIAN STUDIES	Grande Prairie Regional College (Grande Prairie) to University of Alberta	2 Years	Standard admission with a language other than English. Social Studies 30 recommended
CARPENTRY			
Carpentry, Pre-Employment	Alberta Vocational Centre (Grouard)	12 Weeks Certificate	17 years of age. Grade IX or apprenticeship pre-entrance exam.
	Fairview College (Offered off-campus at Peace River Correctional Institute. Open to non-inmates)	8 Weeks	Adult status
	Grande Prairie Regional College	4 Months Certificate	Grade IX or equivalent. 17 years of age. Pre-testing required.
	Keyano College	12 Weeks Certificate	Grade IX or a pass mark in the Trades Inventory Test plus 18 years of age.
	Lakeland College	3-4 Months Certificate	Grade IX or apprenticeship pre-entrance exam.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
House Building Construction, Pre-Employment	Alberta Vocational Centre (Lac La Biche)	33 Weeks Certificate	Standard admission, Grade IX or equivalent.
COMMUNITY HEALTH WORKER	Alberta Vocational Centre (Lac La Biche)	32 Weeks Certificate	Standard admission, Grade IX. Extensive community experience and knowledge of a Native language an asset. A valid Alberta driver's licence is recommended.
CONSERVATION AND RECLAMATION SPECIALIZATION	Lakeland College		
CONSTRUCTION LABOURER, PRE-EMPLOYMENT	Alberta Vocational Centre (Lac La Biche)	5 Weeks Certificate	Standard admission with a basic knowledge of English and mathematics.
	Keyano College	5 Weeks	18 years of age.
COOK			
Commercial Cooking, Pre-Employment	Keyano College	16 Weeks Certificate	Minimum Grade IX or a pass mark on the Trades Inventory Test. 18 years of age.
Cooking, Pre-Employment	Alberta Vocational Centre (Lac La Biche)	16 Weeks Certificate	Grade IX, standard admission
DRAFTING	Lakeland College	1 Year Certificate	Grade XI

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
DRAMA	Grande Prairie Regional College	1 Year Certificate 2 Years Diploma	Standard admission
DRIVER TRAINING			
Air Brakes	Alberta Vocational Centre (Grouard)	100 Hours	17 years of age, valid class 5 licence.
Driver Instructor Training	Alberta Vocational Centre (Grouard)	Varies	Minimum 17 years of age.
School Bus Operator	Alberta Vocational Centre (Grouard)	3 Weeks	Grade IX or equivalent. Minimum 18 years of age, physically fit and acceptable work experience.
	Keyano College	3 Weeks	Grade IX or equivalent. Minimum 18 years of age, physically fit and acceptable work experience.
Tractor-Trailer Operation	Keyano College	5 Weeks	Grade IX or equivalent. Minimum 18 years of age, physically fit acceptable work experience and Class 3 Alberta Driver's Licence.
Truck Driver Training	Keyano College	5 Weeks	Grade IX or equivalent. Minimum 18 years of age. Valid Class 5 Alberta Driver's Licence and able to handle standard transmission.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
DRYWALLING	Alberta Vocational Centre (Lac La Biche)	6 Weeks Certificate	Grade IX, standard admission
EARLY CHILDHOOD DEVELOPMENT	Lakeland College	1 Year Certificate	High School diploma. Good health and interview required.
Early Childhood Education	Keyano College	1 Year Certificate	High school diploma or adult status plus an interview.
Early Childhood Education and Development	Grande Prairie Regional College	1 Year Certificate	High school diploma, adult status or part-time student. Must be of sound mental and physical health, immunization and physical examination required. Interview also required.
Early Childhood Instructional Assistant	Alberta Vocational Centre (Lac La Biche)	37 Weeks Certificate	18 years of age, Grade XII or permission of the Centre and an aptitude for working with young children. Interview required.
Early Childhood Services - Pre-school Aide	Alberta Vocational Centre (Grouard)	6 Weeks plus 3 Annual 6 Week Sessions	Demonstrated abilities and/or experience.
EDUCATION			
Transfer Programs	Grande Prairie Regional College (Grande Prairie) to University of Alberta	2 Years	Standard admission

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
ELECTRICAL TECHNICIAN PRE-EMPLOYMENT	Grande Prairie Regional College	4 Months Certificate	Grade X or equivalent with pass standing in Math 10 or 13.
ELECTRICIAN			
Construction Electrician, Pre-Employment	Keyano College	12 Weeks Certificate	Grade X with 65% in Math 10 or a pass mark in the Electrical Inventory Math Test.
ENGINEERING			
Transfer Programs	Grande Prairie Rgional College (Grande Prairie) to University of Alberta	1 Year	Standard admission with Math 30, Chemistry 30, Physics 30 and one other approved subject.
ENGLISH AS A SECOND LANGUAGE	Alberta Vocational Centre (Grouard)	20 Weeks	Candidates must be eligible under Alberta Vocational Training.
Occupational English	Keyano College	Varies	18 years of age.
ENVIRONMENTAL SCIENCES	Lakeland College Specialization in: - Conservation and Reclamation - Parks and Recreation - Renewable Resources Management - Wildlife and Fisheries	2 Years	High school diploma with Grade XI chemistry, biology, English and math.
Horse Husbandry, Training and Equitation	Lakeland College	3 Months	Standard admission.
Horsemanship and Farrier Science	Lakeland College	5 Months	Standard admission

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
FALLING AND LOGGING EQUIPMENT, PRE-EMPLOYMENT	Grande Prairie Regional College	10 Weeks	Physically able.
FOOD SCIENCE			
Transfer Programs to University of Alberta	Grande Prairie Regional College	1 Year	Standard admission with Chemistry 30 and three other approved subjects. Biology 30 and Math 30 recommended.
FORESTRY			
Transfer Programs to University of Alberta	Grande Prairie Regional College	1 Year	Standard admission with Math 30. Biology 30 and Chemistry 30 recommended.
GENERAL BUSINESS ADMINISTRATION SPECIALIZATION	Grande Prairie Regional College		
HEAVY DUTY MECHANIC			
Heavy Duty/Diesel Mechanics Specialization	Fairview College		
Heavy Duty Mechanics Pre-Employment	Lakeland College	3 Months Certificate	Grade IX or apprenticeship pre-entrance exam.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
HEAVY EQUIPMENT OPERATOR CRANE AND HOISTING EQUIPMENT			
Backhoe Operator	Keyano College	8 Weeks	Grade IX or equivalent. Minimum 18 years of age, physically fit and acceptable work experience.
Earthmoving	Keyano College	6 Weeks	Minimum Grade IX or equivalent and 18 years of age, physically fit and acceptable work experience.
Front End Loader	Keyano College	5 Weeks	Grade IX or equivalent. Minimum 18 years of age, physically fit and acceptable work experience.
Heavy Transport Operator	Grande Prairie Regional College Specialization in: - Class I - Class III	5 Weeks	Minimum 18 years of age and holder of a valid Alberta Operator's Licence with a good driving record. Previous experience handling vehicles larger than one ton. Class I candidates may be required to have Class 3 driving experience.
Truck Transport	Keyano College	5 Weeks	Grade IX or equivalent. Minimum 18 years of age, physically fit and acceptable work experience.
HOME ECONOMICS			
Transfer Programs University of Alberta	Grande Prairie Regional College	1 Year	Standard admission with Chemistry 30 plus three other approved subjects.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
INCOME TAX PREPARATION	H & R Block (Canada) Ltd. Fort McMurray		
INDUSTRIAL WORKER	Keyano College	5 Weeks	18 years of age.
JOB READINESS TRAINING, BASIC	Alberta Vocational Centre (Grouard)	12 Weeks	Standard admission
	Grande Prairie Regional College	Varies	17 years of age or older, out of school one year. No academic pre-requisites. Interview required.
	Life Skills Training Centres Ltd. Fort McMurray	4 Months	None
LEGAL SECRETARY			
Legal Secretary Specialization	Grande Prairie Regional College		
LIFE SKILLS COACH	Alberta Vocational Centre (Lac La Biche)	11 Weeks (includes practicum) Certificate	Grade IX or equivalent. Standard admission.
LOCAL GOVERNMENT ADMINISTRATION SPECIALIZATION	Fairview College		
	Fairview College Extension		

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
MANAGEMENT			
Management and Administration, Basic	Alberta Vocational Centre (Lac La Biche)	37 Weeks Certificate	Grade XI and 18 years of age or adult status. Interview required.
Management, Basic	Alberta Vocational Centre (Grouard)	6 Months	Minimum 17 years of age. Grade X recommended. Good reading and math ability. Interview and pre-testing required.
MARKETING			
Marketing Specialization	Grande Prairie Regional College		
MECHANICAL TECHNICIAN	Grande Prairie Regional College Specialization in: - Auto Body Mechanic - Heavy Duty Mechanic - Machinist/Millwright - Motor Mechanic - Partsperson	4 Months Certificate	Grade IX or equivalent except for a Machinist/Millwright or Partsperson a Grade X or equivalent is required. Pre-testing is also required.
MEDICINE			
Pre-Medicine	Grande Prairie Regional College (Grande Prairie) to University of Alberta	2 Years	Standard admission with four other approved courses

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
MERCHANDISING	Lakeland College Specialization in: - Building Materials - Interior Design	2 Years	High school diploma
Automotives, Pre-Employment	Alberta Vocational Centre (Grouard)	18 Weeks Certificate	Grade IX, standard admission.
	Alberta Vocational Centre (Lac La Biche)	18 Weeks Certificate	Grade IX, standard admission
Basic Automotives, Pre-Employment	Alberta Vocational Centre (Grouard)	4 Months	Grade IX and 16 years of age or apprenticeship pre-entrance exam.
Mechanics, Pre-Employment	Fairview College Specialization in: - Automotive Mechanics - Heavy Duty/Diesel Mechanics	8 Months Certificate	Minimum 17 years of age and 35 high school credits with at least a "C" standing in Math and English at the Grade X level.
	Keyano College	12 Weeks	Grade IX or pass mark on Trades Inventory Test and 18 years of age.
Motorcycle Mechanic	Fairview College	14 Weeks Certificate	Grade X or equivalent
Motors, Pre-Employment	Lakeland College	3 Months Certificate	Grade IX or apprenticeship pre-entrance exam.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
MUSIC	Grande Prairie Regional College	1 Year Certificate	Standard admission
Music Transfer Program	Grande Prairie Regional College (Grande Prairie) to University of Alberta	1 Year	Standard admission with a language other than English. Music examinations, interview and an audition required.
NATIVE CULTURE			
Cultural Awareness through Native Arts and Crafts	Alberta Vocational Centre (Lac La Biche)	40 Weeks Certificate	Grade IX, standard admission.
Native Arts and Crafts	Alberta Vocational Centre (Grouard)	Varies	Grade IX
Native Cultural Heritage	Alberta Vocational Centre (Grouard)	10 Months	Grade IX
NURSING, POST-BASIC PROGRAMS			
Post-Basic Advanced Credit Programs	Grande Prairie Regional College	1 Year*	Standard admission with Chemistry 30. Biology 30 recommended. Must be a Registered Nurse from an approved School of Nursing.

* See Alberta Provincial Transfer Guide for list of equivalent subjects which may be transferred.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
OFFICE AND SMALL BUSINESS ADMINISTRATION	Fairview College		
	Fairview College Extension		
OPTOMETRY, PRE	Grande Prairie Regional College	1 Year	Standard admission with Math 30. Chemistry 30, Physics 30 and Biology 30 recommended.
PARKS AND RECREATION SPECIALIZATION	Lakeland College		
PHARMACY			
Transfer Program to University of Alberta	Grande Prairie Regional College	1 Year	Standard admission with Chemistry 30 plus three other approved subjects. Biology 30, Math 30 and Physics 30 recommended.
PHYSICAL EDUCATION			
Transfer Programs	Grande Prairie Regional College (Grande Prairie) to University of Alberta	2 years	Standard admission with four other approved subjects. Biology 30 and Chemistry 30 recommended.
PIPE TRADES PRE-EMPLOYMENT	Keyano College	12 Weeks Certificate	Grade X or a pass mark in the Trades Inventory Test.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
PLUMBER			
Plumbing, Pre-Employment	Grande Prairie Regional College	4 Months Certificate	Grade IX or equivalent. 17 years of age. Pre-testing required.
	Lakeland College	4 Months Certificate	Grade IX or apprenticeship pre-entrance exam.
	Keyano College	12 Weeks Certificate	Grade X or a pass mark in the Trades Inventory Test.
POWER ENGINEERING	Alberta Vocational Centre (Lac La Biche)	8 Weeks	Grade IX with Grade X math or equivalent, standard admission.
	4th Class		
	Keyano College Continuing Education		
	4th Class	12 Weeks	None.
	3rd Class, Part A	12 Weeks	Alberta 4th Class Certificate plus Math 10 or 12.
	1st & 2nd Class, Part A	12 Weeks	Appropriate Alberta 3rd or 2nd Class Certificate plus Math 20 or 22.
RECREATION ADMINISTRATION			
Transfer Programs to University of Alberta	Grande Prairie Regional College	1 Year	Standard admission with a second language, Biology 30 and Math 30, 31 or 33 recommended.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
RENEWABLE RESOURCES MANAGEMENT SPECIALIZATION	Lakeland College		
SHEET METAL MECHANIC			
Pre-Employment	Lakeland College	4 Months Certificate	Grade IX or apprenticeship pre-entrance exam.
SHORTHAND SPECIALIZATION	Grande Prairie Regional College		
SMALL ENGINE MECHANICS, PRE-EMPLOYMENT			
Small Engine and Recreation Vehicle Repair	Lakeland College	8 Weeks Certificate	Grade IX or apprenticeship pre-entrance exam.
	Keyano College	10 Weeks Certificate	18 years of age. Basic math and English desirable.
SOCIAL SERVICES			
Community Resource Worker	Alberta Vocational Centre (Lac La Biche)	37 Weeks Certificate	Grade XI or equivalent, standard admission with maturity and aptitude in dealing with people. Extensive community experience and a knowledge of a native language an asset.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
Counsellor Aide	Alberta Vocational Centre (Grouard)	6 Weeks (summer) plus 3 annual 6 week sessions Certificate	Minimum 17 years of age. Demonstrated abilities and/or experience.
Social Welfare, Transfer	Grande Prairie Regional College	1 Year	Standard admission. Math 30 and a language other than English recommended.
STENOGRAPHER			
Stenographer Specialization	Fairview College		
Secretarial Arts, - Secretarial Certificate	Fairview College		
- Secretarial Science	Lakeland Coallege		
SURVEYING			
Survey Aide	Alberta Vocational Centre (Grouard)	3 Weeks	Grade IX, standard admission
	Alberta Vocational Centre (Lac La Biche)	2 Weeks	Grade IX, standard admission
TEACHER'S AIDE	Alberta Vocational Centre (Grouard)	6 Weeks plus 3 annual 6 week sessions	Demonstrated abilities and/or experience
	Alberta Vocational Centre (Lac La Biche)	37 Weeks Certificate	18 years of age, Grade XII or permission of the Centre. Aptitude for working with young children and interview required.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
TRAPPERS UPGRADING, FUR	Alberta Vocational Centre (Grouard)	6 Weeks Certificate	Active trapper (registered or resident).
Alberta Trapper Education and Wild Fur Upgrading	Alberta Vocational Centre (Lac La Biche)	4 Weeks Certificate	Active trapper (registered or resident).
TURFGRASS MANAGEMENT TECHNOLOGY	Fairview College	2 Years Diploma (4 months practicum)	At least 18 years of age and/or a high school diploma with a minimum of 100 credits with a "C" in Math 20 or 23, English 20 or 23, Chemistry 20 and Biology 20 or adult status. Personal Interview.
UNIVERSITY TRANSFER PROGRAM			
Transfer to University of Alberta Arts or Science	Grande Prairie Regional College	2 Years	
	Keyano College	1 Year	
VETERINARY MEDICINE, PRE-	Grande Prairie Regional College	2 Years	Standard admission with English 30 and Math 30. Chemistry 30 and Biology 30 strongly recommended.
VOCATIONAL SKILLS TRAINING PROGRAM	Fairview College	2 Years	Educable mentally handicapped adults 18 years of age and older. Written assessment by Alberta Dept. of Social Services and Community Health and provision of comprehensive medical and social background information. All first year students must live in residence.

TABLE A2.1 (continued)

EXISTING CREDIT PROGRAMS AVAILABLE IN NORTHERN ALBERTA

PROGRAM	INSTITUTION	LENGTH	ENTRANCE REQUIREMENTS
WELDER			
Welder Upgrading to Journeyman	Keyano College	8 Weeks	Three years experience in welding trade.
Welding, Pre-Employment	Alberta Vocational Centre (Grouard)	12 Weeks	17 years of age and Grade IX.
	Alberta Vocational Centre (Lac La Biche)	6 Weeks	Grade IX, standard admission.
	Fairview College	6 Weeks	Grade IX, adult status.
	Fairview College (Offered off-campus at Peace River Correctional Institute. Open to non-inmates.)	8 Weeks	Adult status.
	Grande Prairie Regional College	4 Months Certificate	Grade IX or equivalent. 17 years of age. Pre-testing required.
	Keyano College	12 Weeks	Grade IX or pass mark on Trades Inventory Test.
	Lakeland College	3 Month Certificate	Grade IX or apprenticeship pre-entrance exam.
WILDLIFE AND FISHERIES SPECIALIZATION	Lakeland College		

TABLE A2.2

SUMMARY OF ALBERTA AGRICULTURE DEPARTMENT OF EXTENSION COURSES AND ATTENDANCES IN NORTHERN ALBERTA, 1978-1981

	78/79		79/80		80/81	
	Courses	Attendances	Courses	Attendances	Courses	Attendances
Extension	385	4,762	251	6,072	290	6,029
Home Economics[1]	530	11,704	438	9,905	516	11,063
TOTAL	915	19,130	734	15.977	806	17,092

Note 1: Includes Nutrition at school and 4-H

Source: Alberta Agriculture, Office of Agricultural Education Coordinator

TABLE A2.3

SUMMARY OF FURTHER EDUCATION COURSE OFFERINGS
AND REGISTRATIONS FOR NORTHERN ALBERTA - 1980

COUNCIL	COURSES	REGISTRANTS
Athabasca	67	883
Bonnyville	60	604
Central Peace	54	640
Elk Point	31	350
Fort McMurray RCSSD	217	2,374
Fox Creek	27	288
Grand Centre	61	645
Grande Prairie (SCORES)	124	1,442
Grande Prairie County	73	858
Grimshaw/Berwyn	13	157
High Level/Ft. Vermilion	70	715
Mallaig	23	262
Manning	37	400
Northwest Peace	108	1,190
Peace River	43	603
St. Paul	39	459
Slave Lake	18	179
Smoky Lake	30	352
Smoky River	72	787
Swan Hills	19	223
Valleyveiw/Ridgevally	41	407
Western Lesser Slave Lake	23	323
TOTAL	1,284	14,582

Source: Alberta Advanced Education and Manpower - Office of Assistant Director of Further Education

TABLE A2.4
POPULATION 15 YEARS AND OVER, SHOWING LEVEL OF SCHOOLING
FOR ALBERTA AND CENSUS DVISIONS 12, 13 and 15, 1976

	Less Than Gr.5	Grades 5-8	Grades 9-10	Grades 11-13	POST-SECONDARY						Total Post Secondary		
					Non University Only		University Only		Univ. & Non Univ.				
					Non Grad	Grad	Non Grad	Grad	Non Grad	Grad	Non Grad	Grad	Total[1]
CD 12													
N	3,505	8,465	8,895	9,845	2,555	3,385	1,235	1,700	295	1,185	4,085	6,720	41,075
%	8.5	20.6	21.7	24.0	6.2	8.2	3.0	4.1	0.7	2.9	9.9	15.3	
CD 13													
N	2,220	8,890	8,270	8,215	1,705	2,190	770	1,120	190	705	2,665	4,015	34,260
%	6.5	25.9	24.1	24.0	5.0	6.4	2.2	3.3	0.5	2.1	7.8	11.7	
CD 15													
N	4,695	15,165	15,490	16,875	4,380	6,000	2,135	2,870	545	2,100	7,060	10,970	70,245
%	6.7	21.6	22.1	24.0	6.2	8.5	3.0	4.1	0.8	3.0	10.1	15.6	
CD 12, 13,15													
N	10,420	32,520	32,655	34,935	8,640	11,575	4,140	5,690	1,030	3,990	13,810	21,255	145,580
%	7.2	22.3	22.4	24.0	5.9	8.0	2.8	3.9	0.7	2.7	9.5	14.6	
Alberta													
N	46,415	197,025	257,000	366,880	105,580	131,835	66,310	88,730	17,805	57,335	189,695	277,900	1,334,905
%	3.5	14.8	19.2	27.5	7.9	9.9	5.0	6.6	1.3	4.3	14.2	20.8	

1. The total figures represents total population aged 15 and over; due to random rounding, the addition of the row numbers may differ from the total.

Source: 1976 Census of Canada, Vol. 2, Population: Demographic Characteristics: School Attendance and Level of Schooling

TABLE A2.5
POPULATION 15 YEARS AND OVER, NOT ATTENDING SCHOOL FULL-TIME
SHOWING LEVEL OF SCHOOLING FOR ALBERTA AND CENSUS DIVISIONS 12, 13 and 15, 1976

					POST-SECONDARY								
					Non University Only		University Only		Univ. & Non Univ.		Total Post Secondary		
	Less Than Gr.5	Grades 5-8	Grades 9-10	Grades 11-13	Non Grad	Grad	Non Grad	Grad	Non Grad	Grad	Non Grad	Grad	Total[1]
CD 12													
N	3,500	8,255	7,745	8,640	2,300	3,225	930	1,590	255	1,145	3,485	5,960	37,580
%	9.3	22.0	20.6	23.0	6.1	8.6	2.5	4.2	0.7	3.0	9.2	15.9	
CD 13													
N	2,215	8,845	7,550	7,350	1,595	2,100	580	1,070	160	665	2,335	3,835	32,110
%	6.9	27.5	23.5	22.9	4.9	6.5	1.8	3.3	0.5	2.1	7.3	11.9	
CD 15													
N	4,660	14,915	13,625	15,090	3,945	5,650	1,550	2,700	430	1,940	5,925	10,290	64,495
%	7.2	23.1	21.1	23.4	6.1	8.8	2.4	4.2	0.7	3.0	9.2	16.0	
CD 12, 13,15													
N	10,375	32,015	28,920	31,080	7,840	10,975	3,060	5,360	845	3,750	11,745	20,085	134,185
%	7.7	23.9	21.5	23.2	5.8	8.2	2.3	4.0	0.6	2.8	8.7	15.0	
Alberta													
N	46,155	194,445	224,065	327,680	94,530	125,545	44,690	78,005	13,285	51,460	152,505	255,010	1,199,855
%	3.8	16.2	18.7	27.3	7.9	10.5	3.7	6.5	1.1	4.3	12.7	21.3	

1. The total figures represents total population aged 15 and over; due to random rounding, the addition of the row numbers may differ from the total.

Source: 1976 Census of Canada, Vol. 2, Population: Demographic Characteristics: School Attendance and Level of Schooling

Table A3.1

Examples of
Occupations With Anticipated
High Demand Over the 1981-1990 Period

CCDO*	Job Description
1131	Managers: Natural Sciences
1134	Administrators in Medicine and Health
1135	Financial Management Occupations
1136	Personnel and Industrial Relations Management Occupations
1171	Accountants, Auditors and Other Financial Officers
2112	Geologists and Related Occupations
2117	Physical Sciences Technologists and Technicians
2135	Life Sciences Technologists and Technicians
2141	Architects
2142	Chemical Engineers
2143	Civil Engineers
2144	Electrical Engineers
2145	Industrial Engineers
2147	Mechanical Engineers
2151	Metallurgical Engineers
2153	Mining Engineers
2154	Petroleum Engineers
2160	Supervisors, Other Occupations in Architecture and Engineering
2161	Surveyors
2163	Draughtsmen
2165	Architectural and Engineering Technologists and Technicians
2183	Systems Analysts, Computer Programmers and Related Occupations
2391	Educational and Vocational Counsellors
3131	Nurses, Graduate, Except Supervisors
3137	Physiotherapists, Occupational and Other Therapists
3152	Dietitians and Nutritionists
3155	Radiological Technologist and Technicians

continued

Table A3.1 (cont'd)

3156	Medical Laboratory Technologists and Technicians
3157	Dental Hygienists, Assistants and Technicians
4111	Secretaries and Stenographers
4130	Supervisors, Bookkeeping, Account Recording and Related Occupations
4135	Insurance, Bank and Other Finance Clerks
4140	Supervisors, Office Machine and Electronic Data-Processing Equipment
4143	Electronic Data-Processing Equipment Operators
5171	Insurance Salesmen and Agents
5172	Real Estate Salesmen
5173	Salesmen and Traders, Securities
6121	Chefs and Cooks
6125	Waiters, Hostesses and Stewards, Food and Beverage
6129	Food and Beverage Preparation and Related Service Occupations, N.E.C.
7510	Foremen, Forestry and Logging Occupations
7511	Forestry Conservation Occupations
7513	Timber Cutting and Related Occupations
7715	Blasting Occupations, Mining and Quarrying Including Oil and Gas Field Occupations
8160	Foremen: Chemicals, Petroleum, Rubber, Plastic and Related Materials Processing Operations
8165	Distilling, Subliming and Carbonizing Occupations, Chemicals and Related Materials
8231	Sawmill Sawyers and Related Occupations
8238	Occupations in Wood Processing
8250	Foremen, Pulp and Papermaking and Related Occupations
8310	Foremen, Metal Machining Occupations
8311	Tool-and Die-Making Occupations
8313	Machinists and Machine-Tool Setting-Up Occupations
8315	Machine-Tool Operating Occupations
8333	Sheet-Metal Workers

continued

Table A3.1 (cont'd)

8335	Welding and Flame-Cutting Occupations
8531	Electrical Equipment Fabricating and Assembling Occupations
8534	Electronic Equipment Fabricating and Assembling Occupations
8581	Motor-Vehicle Mechanics and Repairmen
8584	Industrial, Farm and Construction Machinery Mechanics and Repairmen
8588	Precision-Instrument Mechanics and Repairmen
8733	Construction Electricians and Repairmen
8786	Insulating Occupations, Construction
8791	Pipefitting, Plumbing and Related Occupations
9533	Stationary Engine and Auxiliary Equipment Operating and Maintaining Occupations

Note: * Classification according to the Canadian Classification and Dictionary of Occupations.

Source: Alberta Advanced Education and Manpower. Employment Trends in Alberta. October, 1981

TABLE A3.2

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
OIL								
Esso Resources Ltd.	In-situ recovery project	CD12 ID 18 Cold Lake	15,000 (Nov.81)	6,890	2,500	2,500	1982-1991 (suspended indefinitely)	proposed
Alsands Energy Ltd.	Oil sands extraction	CD12 ID18 Ft.McKay	13,000 (Jan.82)	6,328	4,263	4,800 (in 1990)	1982-1990 (project postponed)	proposed
Syncrude	Expansion of oil sands processing train	CD12 ID18 Ft.McMurray	2,000 (Dec.81)	2,114	1,006	1,467	project postponed	proposed
BP Canada Ltd	Oil sands pilot project	CD12 MD87 Bonnyville	150 (Nov.81)	n/a	n/a	50	1982-1984	proposed
Husky Oil Ltd	Heavy oil treating and shipping plant	CD12 MD87 Cold Lake	28.6 (Jan.81)	n/a	n/a		1984-1990 (project postponed)	proposed

TABLE A3.2 (continued)

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
OIL (cont.)								
Suncor Inc.	Expansion of in-situ pilot project	CD12 MD87 Fort Kent	88 (Nov.81)	n/a	n/a	n/a	1982-1983	application to ERCB
Union Oil, Canadian Superior Ltd., AOSTRA	Pilot project steam projection recovery process from carbonate rock	CD12 ID18 Ft.McMurray	25 (Nov.81)	n/a	n/a	n/a	1982-1985	proposed
British Petroleum (BP) AOSTRA	Oil sands pilot project expansion	CD12 ID18 Marguerite Lake	55 (Nov.81)	n/a	n/a	n/a	1981-1985	under construction
CANSTAR (Petro-Canada and Nova)	Oil sands extraction and plant	CD12 ID18 Ft.McMurray	13,000 (1982 est.)	6,300	4,300	4,400	1985-1990 (start-up in 1990; production in 1991)	proposed with application to ERCB planned for Dec./1983

TABLE A3.2 (continued)

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
OIL (cont.)								
Esso Resources Canada Ltd	Enhanced oil recovery	CD15 ID17 Swan Hills	470 (Dec.1980)	1,000	n/a	200	Project postponed indefinitely	approved by ERCB
GAS								
Chieftan Development Co. Ltd.	Sour gas processing plant	CD15 County 1 Hythe	25 (Oct.1981)	n/a	n/a	25	Completion mid-1983	approved by ERCB approved by Cabinet for export of gas
PETROCHEMICALS								
Esso Chemical Canada	Ammonia and urea plant	CD13 County 7 Redwater	400 (Apr.1981)	1,000	500	150	Completion in mid 1983	under construction

TABLE A3.2 (continued)

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
PETROCHEMICALS (cont.)								
Esso Chemical Canada	Ammonia and urea plant	CD13 County 7 Redwater	45 (Feb.1981)	n/a	n/a	20-25	Completion early 1982	under construction
Biewag Energy Resources Ltd.	Methanol plant	CD12 County 13 Waskateneau	700 (Aug.1981)	1,400	n/a	250	under consideration	proposed
FORESTRY								
British Columbia Forest Products Ltd.	Sawmill	CD13 ID15 Knight	23 (Feb.1981)	n/a	n/a	415	Spring 1983-Summer 1985	delayed one year due to economic conditions
British Columbia Forest Products Ltd.	Newsprint Mill	CD13 ID15 Hurdy	165 (Feb.1981)	n/a	n/a	200	1982-1985	approved by Cabinet

TABLE A3.2 (continued)

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
FORESTRY (cont.)								
British Columbia Forest Products Ltd.	Sawmill	CD15 ID16 Grande Cache	44 (Feb.1981)	n/a	n/a	70	1981-1982 (start operations in March 82)	under construction
North Canadian Forest Industr. (Canfor)	Relocation and expansion of production capabilities	CD15 County 1 Grande Prairie	20-25 (Apr.1980)	n/a	n/a	n/a	under consideration	proposed
PIPELINES								
Interprovincial Pipeline Ltd.	Oil pipeline	Norman Wells,N.W.T. to Zama Lake,Alta.	1,000 (Nov.)1 (1981)	400-600	n/a	n/a	1983-1985	approved by NEB and and Fed. Cabinet

1. Construction in Alberta of this pipeline comprises only a small segment of the pipeline.

TABLE A3-2 (continued)

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
PIPELINES (cont.)								
Husky Oil Operations Ltd.	Heavy oil pipeline	Cold Lake to Lloydminster	38 (Jan.1981)	n/a	150	10	1982-1983	approved by ERCB
Alberta Energy Co. Ltd.	Heavy oil pipeline	Cold Lake to Edmonton	65 (Jan.1981)	n/a	n/a	n/a	Completion scheduled for 1st quarter of 1982	under construction
ELECTRIC UTILITIES/DAMS								
Calgary Power Ltd. or Alberta Power, Edmonton Power and the City of Medicine Hat	Dunvegan Dam Hydroelectric power project	CD15 Fairview	1,500 (Feb.1981)	1,000	n/a	30	1983-1992	proposed

TABLE A3.2 (continued)

MAJOR RESOURCE PROJECTS (over $20 MILLION)
PROPOSED, APPROVED OR UNDER CONSTRUCTION IN NORTHERN ALBERTA
AS OF JANUARY 1, 1982

COMPANY NAME	TYPE OF PROJECT	LOCATION	COST AS OF DATE (millions)	CONSTR. MANPOWER PEAK	CONSTR. MANPOWER AVERAGE	OPERATIONS MANPOWER	TIMING	STATUS
OTHER								
Flin Flon Mines Ltd.	Processing facility and slurry pipeline	CD12 ID18 Anzac	52-56 (May 1981)	n/a	n/a	50-60 processing facility	under consideration	proposed

Note: To complete construction of a major resource project the process often involves the following chronological steps: (1) a proposal; (2) application to the ERCB; (3) approval by the ERCB; (4) application to cabinet; (5) approval by cabinet; and (6) construction. The stage of the project is reflected under Status.

Source: Planning Secretariat, Alberta Advanced Education & Manpower. Unpublished data, 1982.

APPENDIX 2

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APPENDIX 3

FIELD WORK (INTERVIEWS)

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE I				
G.G. Archibald	NADC	Steering Committee	-	Peace River
Roger Jackson	NADC	Steering Committee	-	Peace River
Harold Wynne	North Peace Adult Education Consortium	Steering Committee	-	Peace River
J.D. Harder	Alberta Education	Steering Committee	-	Edmonton
Ted Langford	AVC, Lac La Biche	Steering Committee	-	Edmonton
Michael Plumb	ACCESS	Steering Committee	-	Edmonton
Alex Fleming	ACCESS	Institution	-	Edmonton
Larry Shorter	ACCESS	Institution	-	Edmonton
Eugene Dextrase	Northwest Reg. Economic Development Council	Steering Committee	High Level	Edmonton
Rollie Seville	Advanced Education	Steering Committee	-	Edmonton
Amy Zelmer	University of Alberta	Steering Committee	-	Edmonton
Stephen Griew	Athabasca University	Steering Committee	-	Edmonton
Alan Meech	Athabasca University	Institutional	-	Edmonton
Brian Pitcairn	Lesser Slave Lake Indian Regional Council	Native People	Slave Lake	Slave Lake
Lorne Larson	Community Vocational Centres	Institutional	Slave Lake	Slave Lake
Ed Gromek	Opportunity Corps	Adult Training	Slave Lake	Slave Lake

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II				
Henry Kolesar	Deputy Minister	AAE & M *	-	Edmonton
Brent Pickard	Coordinator, Program Planning and Development	AAE & M	-	Edmonton
Dave Beckman	Director, Further Education	AAE & M	-	Edmonton
Bud Brabbins	Assistant Director, Student Support	AAE & M	-	Edmonton
Jim Berg	Field Services, working with Provincially Administered Inst.	AAE & M	-	Edmonton
Harold Watson	Dir., Apprenticeship	AAE & M	-	Edmonton
Horace Ottley	Assistant Deputy Minister Field Services	AAE & M	-	Edmonton
Andy Hendry	Director of Student Services	AAE & M	-	Edmonton
N.W. Clarke	Dir., College Programs	AAE & M	-	Edmonton
Ralph Bouvette	Manager, Employment & Training, Indian Affairs	Native People	-	Edmonton
Robert Kruger	Regional Manager, Royal Bank	Employer	-	Edmonton

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Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Gordon Shopland	Personnel Manager, Northern Transportation Co.	Employer	Fort McMurray	Edmonton
R.V. Henning	Northeast Alberta Regional Commission	Community	Fort McMurray	Edmonton
Muriel Stanley-Venne	Director, Community Relations, Bechtel	Employer & Native People	Fort McMurray & others	Edmonton
Bob Walter	President, REW Electric Ltd., Town Council	Employer & Community	High Level	High Level
Douglas Greene	Regional Coordinator, Mackenzie North (MN)	Institution	High Level	High Level & Fairview
Ernie Isley	M.L.A.	Community	Bonnyville, Cold Lake, Grand Centre	Bonnyville
Roy Murray	President, Lakeland Coll.	Institution	Bonnyville, etc.	Vermilion
Wayne Shillington	Regional Director, Lakeland College	Institution	Bonnyville, Cold Lake, Grand Centre	Bonnyville
Gary Polanski	VP Program Developoment Lakeland	Institution	Bonnyville, etc.	Vermilion
Colleen Handley	Instructor, Lakeland	Institution	Bonnyville	Bonnyville
Romeo Lauzon Annette Lauzon	NADC Lakeland graduate	Community & Institution		La Corey
Rene Champagne	Town Council; High School Teacher	Community	Bonnyville	Bonnyville

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
W. Slawuta	Mayor	Community	Bonnyville	(telephone)
Linda Olsqewski Muriel Sikorki	Counsellor, Program Coordinator, Metis Rehab. Centre	Community	Bonnyville Bonnyville	Bonnyville Bonnyville
Simon Dallaire	Administrator, St. Louis Hospital	Employer	Bonnyville	Bonnyville
Dennis Fagnon	President, Chamber of Commerce; Owner, Wisewood Woodcrafters	Employer	Bonnyville	Bonnyville
Charlotte Lynn	Coordinator, Further Education Council	Adult Education	Bonnyville	Bonnyville
Katherine Weibe	Dir. Family and Community Social Services	Community	Bonnyville	Bonnyville
Theresa Jenkins	Director, Native Friendship Centre	Community & Native People	Bonnyville	Bonnyville
Don Appleby	Citizen's Advisory Committee	Community	Cold Lake & Grand Centre	Cold Lake
Irene Brandley	Adult Education Coordinator Further Education Council	Adult Education	Grand Centre	Grande Centre
Warren Johnstone	Mayor, Cold Lake Teacher, Grand Centre	Community	Cold Lake & Grand Centre	Grande Centre

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Neil Kowal	Mayor, Grand Centre	Community	Grand Centre	(telephone)
Dan Brault	Cold Lake Tribal Education	Native People	Cold Lake	Cold Lake
Greg Fedun	Guidance Counsellor, St. Dominique School	Community	Cold Lake	Cold Lake
Steve LaBine	Dir. Family and Community Social Services	Community	Cold Lake	Cold Lake
Tom Turner	Businessman	Employer & Community	Grand Centre	Cold Lake
Archie Collins	Settlement Chairman Elizabeth Metis Settlement	Native People	Elizabeth	Elizabeth
John Dahmer	Regional Director, Lakeland College	Institution	St. Paul	St. Paul
Wayne Wright	Dir. Alberta Social Services and Community Health	Community	St. Paul	St. Paul
Frank Boulet	Superintendent of Schools	Education	St. Paul	St. Paul
Gerry Desaulniers	Manager, Credit Union Pres. Chamber of Commerce	Employer	St. Paul	St. Paul
Jim Nesom	Owner, Lakeview Investments	Employer	St. Paul	St. Paul
Charles Nelson	Businessman	Employer	St. Paul	St. Paul
Judd Anderson	Director, St. Paul Correctional Centre	Employer	St. Paul	St. Paul
Dick Upham	NADC	Community	St. Paul	Ashmont

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Carolyn Yewchin	Regional Supervisor, Alberta Career Centre	Adult Education	St. Paul	St. Paul
Jeannette Boulet	Alberta Culture	Community	St. Paul	St. Paul
Hon. Mr. & Mrs. Ralph Steinhauer	Former Lieutenant Governor	Community & Native People	Saddle Lake	Saddle Lake
Eugene Houle	Chairman, Saddle Lake Tribal Council	Native People	Saddle Lake	Saddle Lake
Peter Naidoo	Superintendant, Saddle Lake Education Authority	Education & Native People	Saddle Lake	Saddle Lake
Ron Silvers Marion Michaels	Director, Academic Programs Director, Pre-University Programs, Blue Quills School	Institution	St. Paul	St. Paul
Sharon Steinhauer	Student, Blue Quills	Institution	St. Paul	St. Paul
Ken Sybryk	Pres., ESP Electronics	Employer	St. Paul	St. Paul
Paul Piquette	Asst. Supervisor, AVC Lac La Biche	Institution	Lac La Biche	Lac La Biche
Dave Enns	Dir., Trades & Technology	Institution	Lac La Biche	Lac La Biche
Gordon Weisenburger	Senior Inst, Special Programs	Institution	Lac La Biche	Lac La Biche
Clive McNichol	Dir., Student Services,	Institution	Lac La Biche	Lac La Biche
Ernie Sehn	Dir., Academic Programs	Institution	Lac La Biche	Lac La Biche
Gerry Gauthier	Program Developer	Institution	Lac La Biche	Lac La Biche

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Don Bzdel	Student, AVC	Institution	Lac La Biche	Lac La Biche
Lil Lewiski	Student, AVC	Institution	Lac La Biche	Lac La Biche
Sara Cadieux	Student, AVC	Institution	Lac La Biche	Lac La Biche
Laverne Yakoweshyn	Student, AVC	Institution	Lac La Biche	Lac La Biche
Florence Boucher	Citizen	Community	Lac La Biche	Lac La Biche
Reuben Pruden	Coordinator, Kikino and Caslan Metis Settlements	Native People	Lac La Biche	Lac La Biche
Norma Ferguson	Citizen	Community	Lac La Biche	Lac La Biche
Phil Coutney	Education North	Education	Lac La Biche	Lac La Biche
Ernie Coutney	School Board member	Education	Lac La Biche	Lac La Biche
Lloyd Deutscher	Superintendent of Schools	Education	Lac La Biche	Lac La Biche
Ernie Howse	ex-Caslan Settlement Coordinator	Native People	Caslan Settlement	Lac La Biche
Gary Calliou	Alcohol Counsellor Trainee	Native People	Beaver Lake Reserve	Lac La Biche
Reed Gauthier	Former School Teacher	Community	Plamondon	(telephone)
Walt King	Education & Resource Coordinator	Native People	Beaver Lake Reserve	(telephone)
Barbara Wilkinson	NADC	Community	Athabasca	Edmonton

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Fred Speckeen	President, Fairview College	Institution	Fairview	Fairview
Dale Landry	Acad. Dean, Fairview College	Institution	Fairview	Fairview
Al Brouling	Supervisor, Community Programs	Institution	Fairview	Fairview
Sandra McKenna	Coord., Continuing Education	Institution	Fairview	Fairview
Larry Chorney	Former Town Manager, ex-NADC	Community	Fairview	Fairview
N. Blaskovits	Superintendent of Schools	Education	Fairview	Fairview
Ernest Dyck	Chamber of Commerce, Farmer	Community	La Crete	La Crete
Alma Janzen	Business Woman	Community	La Crete	La Crete
Isaac Peters	Mgr., Northern Lights Gas Co-op	Community	La Crete	La Crete
John Van Loonen	Principal, Public School	Education	La Crete	La Crete
Jake Elias	Norpine Auto Supplies	Employer	La Crete	La Crete
Jake Wiebe	Community Resource Worker	Community	La Crete	La Crete
Nettie & Frank Fehr	Farmers	Community	La Crete	La Crete
Abe Janzen & Margaret Tanaka	Instructors, Mackenzie North (MN)	Institution	La Crete	La Crete
John Buechert	Mackenzie North Advisory Committee	Education & Community	La Crete	La Crete
Ted West & Ralph Windor	Super. & Asst. Supr., Ft. Vermilion School Dist.	Education	Fort Vermilion	Fort Vermilion

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Susan Ward	Home Economist, Alta. Agriculture	Community	Fort Vermilion	Fort Vermilion
Jim Filipec	Head, Opportunity Corps	Adult Training	Fort Vermilion	Fort Vermilion
Edwin Ward	Owner, John Deere Equipment	Employer	Fort Vermilion	Fort Vermilion
John Twidale	Instructor, Mackenzie North	Institution	Fort Vermilion	Fort Vermilion
Stan Smith	Chairman, I.D. 23 Council	Community	Fort Vermilion	Fort Vermilion
Noreen McAteer	School Board, Student at MN	Community	Fort Vermilion	Fort Vermilion
Joyce Edwards	Dir. Nursing, St. Therese Hosp.	Community	Fort Vermilion	Fort Vermilion
Al & Irma Willier	Band Manager & Secretary/Accountant	Community & Native People	5 reserves in Northwest	High Level
Adele Fournier	Education Committee	Native People	Boyer River Band	Boyer River
Agnes Dumain	Student, Mackenzie North	Institution	Jean D'Or Prairie	High Level
Lorna Ferguson	Coord., Further Education Council, Mackenzie North	Institution	Fort Vermilion	Fort Vermilion
Dick Manning	Superintendent, Acquitaine	Employer	Rainbow Lake	Rainbow Lake
Judi Huberdeau	Dir., Kikino Center	Community	Rainbow Lake	High Level
Dale Huberdeau	Forest Officer, Alberta Forest Service	Employer & Community	Rainbow Lake	Footner Lake
Gordon Reid	Store Owner	Employer	High Level	High Level

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Tricia & Jan Shell	Personnel, Swanson Lumber	Employer	High Level	High Level
Leo Parenteau	Nova	Employer	High Level	(telephone)
Bruce Edwards	Office Manager, Alberta Forest Service	Employer	High Level	Footner Lake
Joanne Mitchell	Businesswoman, Town Council, N.W. Reg. Econ. Devel. Council	Employer & Community	High Level	High Level
Evert Krider & Vic Peters	Prin. & Vice-Prin. Public School	Education	High Level	High Level
Leona Shandruk	District Administrator, AADAC	Community	High Level	High Level
Gloria Sederquist	RCMP, (was with Manpower)	Community	High Level	High Level
Elaine Dextrase	Chinchaga Further Education Council	Adult Education	High Level	High Level
Mavis Bogstie	Instructor, Mackenzie North	Institution	High Level	High Level
Helena Peters	Student, Mackenzie North	Institution	High Level	High Level
Lou Duigou	Superintendent, Peace River Separate School Division	Education	Peace River	Peace River
Lachlan Phimester	Superintendent, Peace River Public School Division	Education	Peace River	Peace River
Jim Peacock & John Smeenk	Shell Resources	Employer	Peace River	Peace River

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Don Fritz	Shell Resources	Employer	Peace River	Peace River
Barry Ellis	Director, Community Services	Adult Education/ Community	Peace River	Peace River
Fran Paras	Home & School Assoc., Peace River Separate School	Community	Peace River	Peace River
Diane Hokanson	Member, Min. Advisory Committee for Further Education	Community	Peace River	Peace River
John Wahl Ruth Kidder Marg Walker Mel Simpson	Employment Opportunity Prog. Employment Couns. & Reloc. Native Friendship Centre Canada Employment Centre	Community	Peace River	Peace River
Ike Lawrence	ex-NADC, Businessman, Town Counsellor	Community	High Prairie	High Prairie
Fred Dumont	Supervisor, AVC Grouard	Institution	Grouard	Grouard
Kendell Tang	Asst. Supervisor, AVC Grouard	Institution	Grouard	Grouard
John Vandermeulen	Dir., Instruction AVC Grouard	Institution	Grouard	Grouard
Bob Aitkin	Dir., Extension AVC Grouard	Institution	Grouard	Grouard
Bill Lisehoff	Head, Pre-Trades AVC Grouard	Institution	Grouard	Grouard
Barb Kelly	Instructor, AVC Grouard	Institution	Grouard	Grouard

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Albin Lafleur Gary Okeynan David Cox	Students, AVC Grouard	Institution	Grouard	Grouard
Chris Jones	NADC	Community	McLennan	McLennan
Lionel Remillard	Superintendant, Falher School District	Education	Falher	Falher
Lorne Larson	CVC Slave Lake	Institution	Slave Lake	Slave Lake
Mike Cardinal	Relocation and Employment Counselling	Steering Committee	Slave Lake	Slave Lake
Ed Gromek	Opportunity Corps	Adult Training	Slave Lake	Slave Lake
Bob Meredith	ex-Teacher	Community	Slave Lake	Slave Lake
Peter Moore	Indian Regional Council	Native People	Slave Lake	Slave Lake
Jerry Wallsten	Store Owner	Employer & Community	Slave Lake	Slave Lake
Terry Lusty	Teacher, Northland Sch. Div.	Education	Wabasca/Demarais	(telephone)
Palley Pillay	Teacher and Mayor	Education & Community	Slave Lake	Slave Lake
Glen Arendt	Mgr., Zeidler Forest Products	Employer	Slave Lake	Slave Lake
George Butterworth	Personnel Mgr., Weldwood	Employer	Slave Lake	Slave Lake
Dorothy Rowles	President, Grande Prairie Regional College	Institution	Grande Prairie	Grande Prairie

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Lane Smith	Director, Family and Community Social Services	Community	Grande Prairie	Grande Prairie
Bill Hunter	Prin., Grande Prairie High School	Education	Grande Prairie	Grande Prairie
Hugh Sanders	Dep. Prin., Grande Prairie High School	Education	Grande Prairie	Grande Prairie
Sharon Schneider	Personnel Manager, Proctor & Gamble	Employer	Grande Prairie	Grande Prairie
Chris Anderson	Manager, Woodlands Operations Canfor	Employer	Grande Prairie	Grande Prairie
Henry Anderson	Dir., Adm. Services, Colleges and Universities, AAE & M	Institution	Grande Prairie	Edmonton
Doug Schmit	President, Keyano College	Institution	Fort McMurray	Fort McMurray
Bob Gervais	Exec. V.P., Keyano College	Institution	Fort McMurray	Fort McMurray
Doug McCrae	V.P., Student Services	Institution	Fort McMurray	Fort McMurray
Ted Walter	Chairman, Academics	Institution	Fort McMurray	Fort McMurray
Karen Roberts	Chairman, Continuing Education	Institution	Fort McMurray	Fort McMurray
Gerry Wells	Dean, Heavy Industry	Institution	Fort McMurray	Fort McMurray
Meredith Saxon	Student, Keyano College	Institution	Fort McMurray	Fort McMurray
Kerry Drew	Student, Keyano College	Institution	Fort McMurray	Fort McMurray
Michele Murray	Student, Keyano College	Institution	Fort McMurray	Fort McMurray
Betty Stroud	Student, Keyano College	Institution	Fort McMurray	Fort McMurray
Nancy Deneve	Student, Keyano College	Institution	Fort McMurray	Fort McMurray
Maureen Clayton	Student, Keyano College	Institution	Fort McMurray	Fort McMurray
Art Latto	Mgr., Employee and Corporate Development, Suncor	Employer	Fort McMurray	Fort McMurray

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Mariella Snedden & Ralph Holmes	Native Program Coord (ex-NADC) Head, Appren. Training Syncrude	Employer	Fort McMurray	Fort McMurray
Ted Fowle	Counsellor, Canada Manpower	Community	Fort McMurray	Fort McMurray
Robert Prather	Super. Ft. McMurray Public School District	Education	Fort McMurray	Fort McMurray
Cotter McGillivray	Asst. Super.,Ft. McMurray Separate School District	Education	Fort McMurray	Fort McMurray
Bertha Clark	Dir., Friendship Center & ex-NADC	Community	Fort McMurray	Fort McMurray
Lynne Bryant	Dir., Health Unit	Employer & Community	Fort McMurray	Fort McMurray
Ted Mason	Mayor	Community	Fort McMurray	Fort McMurray
Don Fleming	Alberta Social Services and Community Health	Community	Fort McMurray	Fort McMurray
Jean MacIntyre	Coordinator, Programs Keyano College	Institution	Fort Chipewyan	Fort Chipewyan
Maureen Clark	Instructor, Keyano I.D. Advisory Council	Institution & Community	Fort Chipewyan	Fort Chipewyan
Gary Westhoria	Prin., Bishop Piche School	Education	Fort Chipewyan	Fort Chipewyan
Dan Sharon	Prin., Northlands School	Education	Fort Chipewyan	Fort Chipewyan
Sister Brady	Retired Teacher	Education & Community	Fort Chipewyan	Fort Chipewyan

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Loyde Antoine	Counsellor, Cree Band	Native People	Fort Chipewyan	Fort Chipewyan
Ron Moore	Tutor, U. of Calg. Outreach	Institution	Fort Chipewyan	Fort Chipewyan
Bernadette Ladoceur	Citizen	Community	Fort Chipewyan	Fort Chipewyan
Colin Campbell	Personnel Develop., CNR	Employer	-	Edmonton
Carol MacHardy	Manpower Planning, CNR	Employer	-	Edmonton
Bill Buchanan	Reg. Training, CNR	Employer	-	Edmonton
Ernie Luders	Northwest Utilities	Employer	-	Edmonton
Bob Roseneder	Operations, AGT	Employer	-	Edmonton
Ernie Palechuk	Operations, AGT	Employer	-	Edmonton
Derek McCune	Organization Development, AGT	Employer	-	Edmonton
Ron Baldwin	Personnel, AGT	Employer	-	Edmonton
Pat McFetridge	Chairman,Dept. Elementary Education, U of A	Institution	-	Edmonton
Charles Lockwood	Dean of Extension, U of A	Institution	-	Edmonton
Merrill MacDonald	Dept. of Extension, U of A	Institution	-	Edmonton
Ron Kinney	Dept. of Extension, U of A	Institution	-	Edmonton
Lloyd Carswell	Director of Special Sessions U of A	Institution	-	Edmonton
Ed Seger	Dept. of Ed. Admin., U of A	Institution	-	Edmonton

Person	Position/ Agency Represented	Sector Represented	Community Represented	Location of Interview
PHASE II (cont'd)				
Gamila Morcos	Dean, Faculte Saint-Jean, U of A	Institution	-	Edmonton
Doug Shale	Office of Institutional Studies, Athabasca University	Institution	-	Edmonton
Garnet Birch	Office of Educational Development University of Calgary	Institution	-	Peace River

APPENDIX 4

INSTITUTIONAL QUESTIONNAIRE

I. Mandate

1. What do you perceive the mandate of your institution to be?
2. How well do you feel your institution is fulfilling its mandate?
3. What barriers are preventing your institution from achieving its mandate?
4. In what areas is your institution achieving its greatest success?
5. In what aspects could your institution improve?
6. Does your institution have jurisdictional problems with other institutions in your region?
7. How could your organization become more effective in fulfilling its mandate?
8. What are the main factors impeding the success of students attending your institution?
9. What is your drop out rate?

II. Student Recruitment

1. Do you feel that the Community at large is aware of what your institution has to offer?
2. How successful is your institution in attracting students?
3. How do you define an adult?
4. a) Where do most of your students come from?
   b) Are you satisfied with the number of students from this area?
5. Do you know the student participation rate as a percent of the population for your area?
6. What barriers exist that are keeping students from entering your institution.

RMC

III Needs Assessment

1. How does your institution determine needs?

2. Whose needs are you determining? Student? Industry?

3. Who should be determining needs in your area? Industry? Government?

4. Are there gaps in you program offerings that you feel should be filled by your institution?

5. Does your institution liase with industry to determine the effectiveness of your training programs?

IV Priorities and Issues

1. What do you see as the main priorities for your institution?

2. What should be the priorities for adult training and education throughout Northern Alberta?

3. What are the major issues facing adult training and education in Northern Alberta today?

RMC

REVIEW ADULT EDUCATION & TRAINING IN NORTHERN ALBERTA

QUESTIONS FOR EMPLOYERS

Section A — Your Needs as an Employer

1. Can you describe the kinds of skills your employees require?

2. Do some of your people require formal training or "certificates"?

3. If you need a welder, a technician, an accountant or secretary, etc., how do you find them?

Section B — Relationships With Adult and Vocational Training Organizations and Institutions in Northern Alberta

1. Is the training you require of your people available through institutions for adult and vocational education? i.e., colleges, AVC's, CVC's, etc.

2 Have you had contact with people responsible for adult education and voacational training in your area? Which organizations have you had discussions with?

3. What input have you made to their programs? Have they sought or obtained your opinions on:

   Kinds of training required
   Number of trained people you or others require
   Course/programs content
   Evaluation of present courses
   Assistance in teaching or funding
   Where programs should be taught

4. In what other ways have you worked with them? How would you describe your experiences working with them?

Section C — Availability of Courses and Programs

1. Does it appear that your employees or people in this area have any difficulty getting the courses they require?

   If so why?

RMC

2. Are there training needs that are not presently being met in your area by adult and vocational training institutions and organizations? Explain!

Section D Employer Opinions on Programs Available

1. Do you consider the programs/courses that are offered to be of real value to your organization?

2. What has been your experience with the graduates of adult and vocational training programs in your area?

3. Do you feel that your workers and/or others in the area are receiving adequate counselling, screening in connection with the programs/courses which you are most concerned with?

4. Is there enough emphasis being given to basic education in such things as reading, mathematics?

5. Do you have any general feelings as a taxpayer about the cost, availability, and quality of adult and vocational training programs in your area and the way they are being administered?

Section E Employer Recommendations

1. If you were in a position to change things to improve adult and vocational education in your area for the benefit of your organization and the community in general, what would you do?

RMC

QUESTIONS FOR DISCUSSION

REVIEW OF TRAINING AND ADULT EDUCATION IN NORTHERN ALBERTA

1. What has been your experience and/or involvement with Training and Adult Education in Northern Alberta?

2. Describe your perception of Training and Adult Education (T & AE) as it presently exists.

3. Do you feel that the present delivery of T & AE is meeting present needs satisfactorily? (regional disparities?)

4. What do you perceive, or how would you describe, the SYSTEM to deliver T & AE to Northern Alberta?

5. What do you see as the greatest STRENGTH(s) of the present T & AE?

6. What do you see as the greatest WEAKNESS(es) of the present T & EA?

7. How could the present problems be solved?

8. Do you think adults in Northern Alberta are making adequate use of present T & AE resources?

9. How do you think T & AE in Northern Alberta compares with what is available throughout the rest of Alberta or elsewhere?

10. If you could design a Training and Adult Education system and were given a completely free hand, money being no problem, what would it look like?

11. What do you perceive as the needs for T & AE in the immediate future, 5 years from now, and 10 years from now?

12. Other comments.

RMC

APPENDIX 5

THE CONTEXT FOR CONTINUING DEVELOPMENT OF POST-SECONDARY EDUCATION SERVICES

Background Information
for Institutional Planning Visitations

Alberta
ADVANCED EDUCATION
AND MANPOWER

The Context for Continuing Development of Advanced Education Services

The promotion of the economic, social and cultural development of Alberta and Albertans has led to the establishment of a comprehensive system of post-secondary education in this province. Today, there are more than twenty advanced education institutions providing a wide range of credit and non-credit programs. In addition, other agencies, such as consortia, local further education councils, private colleges and private vocational schools provide a wide variety of educational experiences.

For the past fifteen to twenty years, the challenge for government and institutions has been to respond to strong quantitative pressures from a rapidly growing, relatively young population. The following points outline some general demographic, economic and social trends which are likely to impact on the provision of advanced education services over the next few years.

Demographic Trends

The growth of Alberta's population, at approximately 3.2% per year over the last few years, is about three times that of Canada's. A similar situation is expected to exist in the first half of the 1980's. There has been a shift in the source of population growth, with natural increase declining as a share of growth while migration has increased. This situation is also expected to apply in the future. Given the aging of the baby boom group, as well as the age distribution of in-migrants, Alberta's population is expected to become more "mature" over the next decade. The proportion of those aged 5 - 14 will remain relatively stable and the 15 - 24 age group will experience limited growth. However, the 25 - 64 age group will be growing at an extremely rapid rate. Geographically, the trend towards increased urbanization will continue, though at a slower rate than previously. Since 1966, the metropolitan areas of Edmonton and Calgary have accounted for more than half of the Provincial population. With rapid growth expected in a number of regional centres and resource towns, it is unlikely that the

metropolitan areas will further increase their share of population.

Economic Trends

Rapid growth of the Alberta economy has resulted in significant employment growth in the Province. The number employed has grown by an average annual rate exceeding 5% during the last five years, which is about double the Canadian figure. In order to have adequate labour supply to meet the rapid growth in jobs, increased participation in the labour force (notably by women) and high levels of migration have been required. This will continue to be the case in the future, with about 40% of the new jobs created being filled by in-migrants. Over the last four years, the highest average annual growth rates have been in the Other Primary Industries (primarily oil and gas, and forestry) and in the Construction Industry. Although these two industries will continue to show strong growth in the 1980's, a shift in industrial growth is expected with more rapid increases in industries such as Manufacturing, Transportation, Finance, Trade and Service. As well, with the increased emphasis on research and development by all levels of government, high technology industries can be expected to grow more rapidly. Reflecting continued economic expansion and the industrial shifts there will be a high demand in a number of occupational areas: engineering and engineering technology, finance and accounting, computing, some health occupations, and mechanics. As construction begins on many of the large industrial projects expected to start in the early Eighties, there will also be high levels of demand for construction tradesmen. Labour supply is anticipated to be very tight in the Eighties, given continued high levels of demand coupled with the fact that the baby boom generation, being already absorbed in the labour force, will no longer provide a readily available pool of supply. Increased turnover and recruitment difficulties could result from labour market imbalances. Technological change in the next decade will also have an impact on employment. Adoption of technological advances will mean an increased need for on-the-job training and retraining programs. There may be an increased need for computerization and automation, especially in the service industries, as growth and labour force slows and firms have greater difficulty recruiting manpower.

Social Trends

In addition to the above mentioned demographic and economic trends, there are various social trends that may impact upon the provision of programs and services. The characteristics of the family unit are changing. The average family size is smaller, divorce rates are higher, and more single parent families and common-law marriages exist. The average educational level of Albertans has increased significantly over the past nine years. The average family income has increased substantially since 1971, reaching $21,250 in 1977. However, the cost of living has also increased significantly. Society has become more cosmopolitan. The crime rate has increased significantly, especially in the metropolitan regions. Juvenile delinquency and drug abuse have also experienced substantial increases. The role of women in society has undergone significant change in that more are participating full-time in the labour force, causing the demand for day care and related services to increase. High mobility of the population and creation of "new towns" in resource development areas of the Province has caused drastic changes to the nature and characteristics of community living. Society is placing increased emphasis on individualism and indulgence in activities for the purpose of individual self-fulfillment. Social awareness of health care and physical fitness is gaining in popularity due partly to the gradual aging of the population.

Current Trends in Advanced Education

Several current trends in the provision of advanced education services can be noted.

Enrolment

There has been a general leveling in the rate of growth in full-time credit enrolment. This has been most noticeable in the universities sector. Enrolment forecasts suggest marginal increases in

overall credit enrolment for the next ten years. Notwithstanding this general trend in enrolment pattern, it can be expected that within any institution demands for access to certain programs will increase while demands for others will decrease. Further, it is expected that increasing numbers of Albertans will enrol as part-time students in credit, short course and non-credit retraining programs.

Program Development

Each institution has established, in accordance with its overall mission, a relatively complete set of certificate, diploma and degree credit programs. In light of Alberta's economic development, programming, especially in the colleges sector, will expand in order that more of the demand for highly-skilled manpower can be met through the Alberta advanced education system. At the same time, the option of industry-based training needs to be carefully investigated. In recent years, there has been growth in the number of program initiatives for more specialized training. It is expected that the pressure to provide specialist training within several general program areas will increase during the 1980's.

Program Delivery

Post-secondary instruction has been characterized by face to face interaction in a lecture, seminar or laboratory situation. A major challenge will be to apply appropriate interactive communications technologies to complement but not strictly add-on to the existing program delivery capabilities of institutions. It can be anticipated that the rising expectations and needs of people for credit programs in their locale will result in further demands for expansion on a regional basis of advanced education services. During the next ten years, increasing pressure will be placed on institutions to deliver credit programs, individually or jointly, in many outlying areas.

Program Finance

Funding decisions need to flow from a general statement of desired directions for the continuing development of the advanced education system. While internal reallocation by institutions will be a means for adapting to changing circumstances, justification for increased levels of expenditure of public funds for program and facilities development will require the coordinated development.

Program Development Initiatives

From the foregoing, it is clear that Alberta has established an "infrastructure" for the development of her human resources. A comprehensive range of post-secondary programs is being delivered to increasing numbers of people. At the same time, the environment in Alberta and current trends impacting on advanced education suggest several major program development initiatives which take account of the existing capabilities of the provincial system of advanced education and address the need to continually enhance those capabilities.

In coping with the challenges implied by these major trends, a set of guidelines for determining desired directions for the continuing development of advanced education needs to be articulated. A consultative approach to developing guidelines needs to be undertaken. As a first step in this approach, the following program development initiatives are suggested as a springboard for discussion and refinement.

Technology and Trades Program Initiatives

In recent years, the Alberta system of post-secondary education has as a priority, responded to the increasing demand for skilled, and highly qualified manpower which have been associated with resource industry developments. The most striking example of this initiative has been the regional expansion of technology and trades programs to accommodate increasing numbers of students in the public colleges. The

"manpower demand" program initiative has two basic thrusts. The first is to complete the expansion of trades and technology programming to the public college sector. The second is to improve the existing capability of the system to offer retraining and continuing professional education programs. Recent data[1] suggest that the need for retraining will become a major program issue during the 1980's. As Alberta's economy continues to diversify, as new technological advances are implemented in the industrial, manufacturing and health sectors and as knowledge expands, demands by professional and occupational groups as well as individuals will increasingly reflect the need for refresher and retraining programs.

Research and Development Initiatives

In recent years, a significant commitment has been made by the province to research and development in the resource extraction, energy, agriculture and medical areas. A major contribution of universities is made in creating new knowledge and, more importantly for a rapidly changing society, applying new knowledge to further the development of economic and social priorities. With respect to the research and development initiative, consideration will be given to the determination and achievement of provincial and national priorities for research and development in order that economic development can proceed and can continue to support the extensive research required for economic growth to continue.

Applied Arts Program Initiatives

The development of a comprehensive range of post secondary education programs has largely been a response to meeting individuals' personal and vocational aspirations and the important social and cultural needs of society. While the development of new "social demand" programs is likely to stabilize, attention will be directed at establishing a broader range of post secondary programs for handicapped and other semi-dependent (i.e. seniors) persons. The development of programs which address important

1. Peitchinius, S. "The Impact of Technological Changes on Employment".

social issues will be a matter of priority. Important issues include maintenance of the family unit and social issues resulting from rapid population growth such as increasing crime rate and alcohol and drug abuse.

The ability of many Albertans to live satisfying lives and, through their work, contribute to Alberta's prosperity is hampered by several factors including: educational level, age, sex and geographical location. The human development program initiative will focus on the special needs of people who are under-educated, under-employed, and living in sparsely populated areas of Alberta. Attention will continue to be directed at programs which assist in: reducing youth unemployment; improving the access of women to the labour force; and, resolving the special problems encountered by natives and immigrants. Human development programming will center on the issue of adult basic literacy and the development of entry level employment skills.

Program Delivery Initiatives

Program delivery speaks directly to the question of improving the access of people to post secondary education. The question of accessibility can be addressed in at least two ways: establishing means whereby institutional services reach out to people; and, applying new and evolving communications technologies to the delivery of post secondary educational programs. The program delivery initiative will focus on establishing and assisting in the operation of, as may be required, various off campus delivery approaches such as consortia, extension programming and satellite campus operations. The program delivery initiative will focus also on the application of electronics technology (e.g. computer managed learning, computer assisted instruction) and the integration of interactive communications technology in instruction. Such application will result in the establishment of a communications network comprised of both land based and satellite facilities. This network can be accessed by individuals whether they are

located at an advanced education institution, a school, an office, a job site, at home, a correctional institute, etc. A variety of services would be available including: information retrieval from several data banks; interactive instructional programs; the transmission via electronics of learning materials directly to where the student is; word processing; electronic mail; and financial and business information. Alberta can assume leadership in terms of preparing citizens to participate in and contribute to the revolution in communications and information processing.

Summary

The foregoing outline suggests that during the next ten years, the challenges faced by the system of advanced education will include:

1. the needs of a maturing and aging population;
2. the retraining needs of the increasing number of skilled people moving to Alberta to take advantage of expanding employment opportunities;
3. the changing educational and training requirements of the rapidly diversifying Alberta economy;
4. the pressure of technological change both as it affects education directly (the technology of instruction) and indirectly (the diffusion of technological change throughout society);
5. the overall maintenance of the provincial system of advanced education.